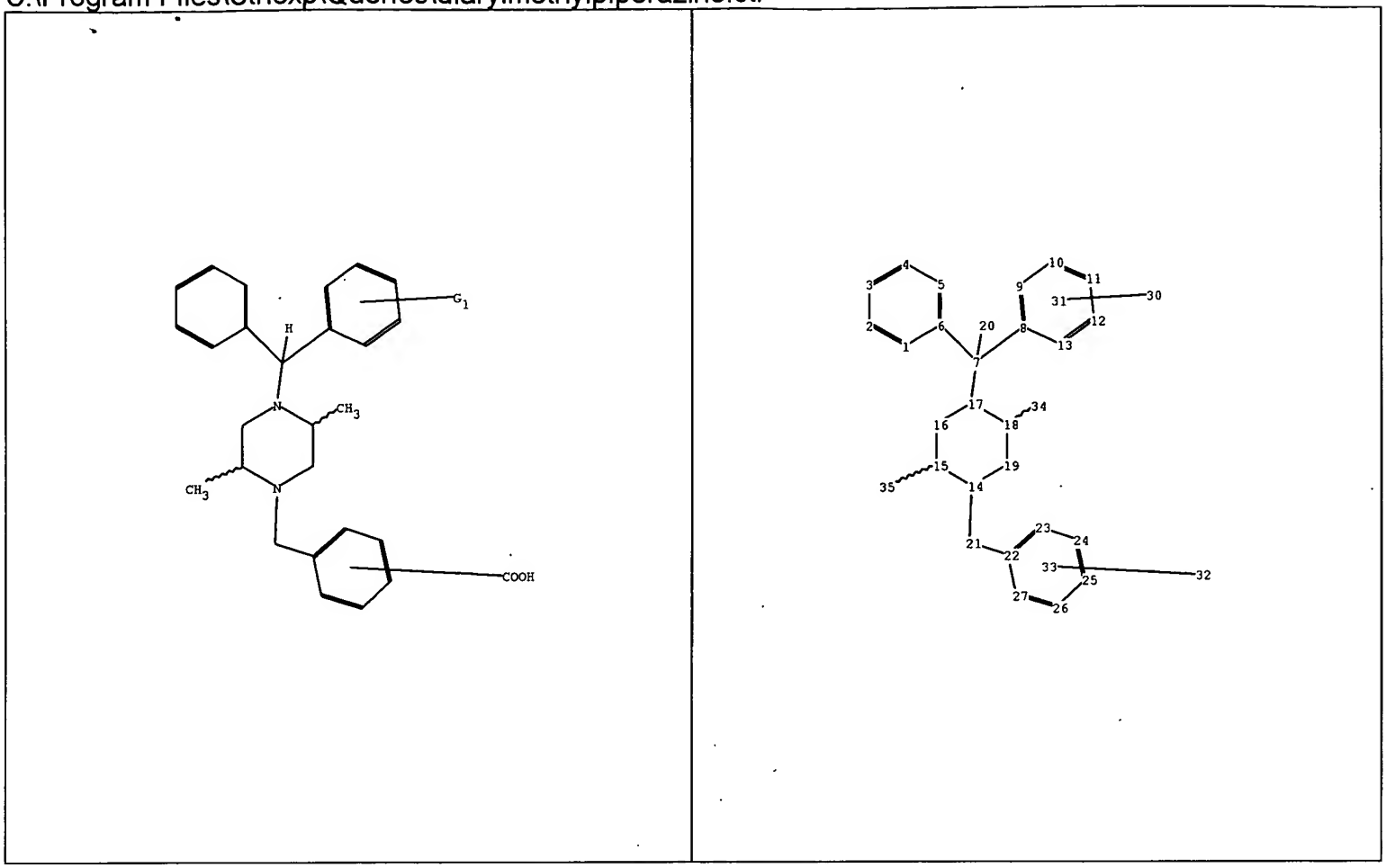
EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1630	ischemic adj damage	US-PGPUB; USPAT	OR	OFF	2006/07/29 22:01
L2	195	l1 and (arrythmia or arrhythmia)	US-PGPUB; USPAT	OR	OFF	2006/07/29 22:01
L3	82	l1 and (arrythmia or arrhythmia)	USPAT	OR	OFF	2006/07/29 22:11
L4	1	"6514975".pn.	USPAT	OR	OFF	2006/07/29 22:18
L5	1	"6919350".pn.	USPAT	OR	OFF	2006/07/29 22:21
L6	1	"6300332".pn.	USPAT	OR	OFF	2006/07/29 22:19
L7	104657	chang or perndergast or gengo or carrboro	US-PGPUB; USPAT	OR	OFF	2006/07/29 22:20
L8	135	l7 and (delta adj opioid)	US-PGPUB; USPAT	OR	OFF	2006/07/29 22:32
L9	3	l8 and ardent	USPAT	OR	OFF	2006/07/29 22:21
L10	4	ardent and (delta adj opioid)	US-PGPUB; USPAT	OR	OFF	2006/07/29 22:27
L11	0	diarylmethylopiperazine	US-PGPUB; USPAT	OR	OFF	2006/07/29 22:28
L12	18	diarylmethylpiperazine	US-PGPUB; USPAT	OR	OFF	2006/07/29 22:30
L13	5	l12 and (ischemia or ischemic or heart or cardio or myo or cardiac)	US-PGPUB; USPAT	OR	OFF	2006/07/29 22:32
L14	195172	(ischemia or ischemic or heart or cardio or myo or cardiac)	US-PGPUB; USPAT	OR	OFF	2006/07/29 22:32
L15	326	l14 and (delta adj opioid)	US-PGPUB; USPAT	OR	OFF	2006/07/29 22:33
L16	148	l14 and (delta adj opioid)	USPAT	OR	OFF	2006/07/29 22:33
L17	179	l15 and (ischemia or ischemic)	US-PGPUB; USPAT	OR	OFF	2006/07/29 22:33

C:\Program Files\Stnexp\Queries\diarylmethylpiperazine.str



chain nodes :
7 20 21 30 31 32 33 34 35
ring nodes :
1 2 3 4 5 6 8 9 10 11 12 13 14 15 16 17 18 19 22 23 24 25 26 27
chain bonds :
6-7 7-8 7-17 7-20 14-21 15-35 18-34 21-22 30-31 32-33
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 8-9 8-13 9-10 10-11 11-12 12-13 14-15 14-19 15-16 16-17 17-18 18-19 22-23 22-27 23-24 24-25 25-26 26-27
exact/norm bonds :
7-17 14-15 14-19 14-21 15-16 16-17 17-18 18-19 30-31
exact bonds :
6-7 7-8 7-20 15-35 18-34 21-22 32-33
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 8-9 8-13 9-10 10-11 11-12 12-13 22-23 22-27 23-24 24-25 25-26 26-27

G1:X,OH,MeO,EtO,n-PrO,i-PrO,n-BuO,i-BuO,s-BuO,t-BuO,H

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:CLASS 21:CLASS 22:Atom 23:Atom 24:Atom

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1616BSK

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	FEB 27	New STN AnaVist pricing effective March 1, 2006
NEWS	4	APR 04	STN AnaVist $500 visualization usage credit offered
NEWS	5	MAY 10	CA/CAplus enhanced with 1900-1906 U.S. patent records
NEWS	6	MAY 11	KOREAPAT updates resume
NEWS	7	MAY 19	Derwent World Patents Index to be reloaded and enhanced
NEWS	8	MAY 30	IPC 8 Rolled-up Core codes added to CA/CAplus and USPATFULL/USPAT2
NEWS	9	MAY 30	The F-Term thesaurus is now available in CA/CAplus
NEWS	10	JUN 02	The first reclassification of IPC codes now complete in INPADOC
NEWS	11	JUN 26	TULSA/TULSA2 reloaded and enhanced with new search and and display fields
NEWS	12	JUN 28	Price changes in full-text patent databases EPFULL and PCTFULL
NEWS	13	JUl 11	CHEMSAFE reloaded and enhanced
NEWS	14	JUl 14	FSTA enhanced with Japanese patents
NEWS	15	JUl 19	Coverage of Research Disclosure reinstated in DWPI

NEWS EXPRESS JUNE 30 CURRENT WINDOWS VERSION IS V8.01b, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 26 JUNE 2006.

NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS LOGIN	Welcome Banner and News Items
NEWS IPC8	For general information regarding STN implementation of IPC 8
NEWS X25	X.25 communication option no longer available

Enter NEWS followed by the item number or name to see news on that specific topic.

* * * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 21:36:51 ON 29 JUL 2006

=>
Uploading
THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE
Do you want to switch to the Registry File?
Choice (Y/n):
Switching to the Registry File...

```
      (FILE 'HOME' ENTERED AT 21:36:51 ON 29 JUL 2006)

      FILE 'REGISTRY' ENTERED AT 21:47:48 ON 29 JUL 2006
L1                STRUCTURE UPLOADED
L2             47 S SSS FULL L1

      FILE 'CAPLUS, BIOSIS, USPATFULL' ENTERED AT 21:48:25 ON 29 JUL 2006
L3             16 S L2
L4             16 DUP REM L3 (0 DUPLICATES REMOVED)
L5             16 FOCUS L4 1-
                  E CHANG KWEN/AU
L6           1775 S E-37
                  E PENDERGAST W/AU
                  E GENGO P/AU OR MA XIN/AU
L7             31 S E4-E5
                  E MA X/AU
                  E MA XIN/AU
L8            269 S E3-E12

=> s l5 or l6 or l7 or l8
L9          2088 L5 OR L6 OR L7 OR L8

=> s l5 and l9
L10           16 L5 AND L9
```

Some commands only work in certain files. For example, the EXPAND command can only be used to look at the index in a file which has an index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of commands which can be used in this file.

=> FILE REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	3.78	3.78

FILE 'REGISTRY' ENTERED AT 21:47:48 ON 29 JUL 2006
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 27 JUL 2006 HIGHEST RN 896463-29-9
DICTIONARY FILE UPDATES: 27 JUL 2006 HIGHEST RN 896463-29-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=>
Uploading C:\Program Files\Stnexp\Queries\diarylmethylpiperazine.str

L1 STRUCTURE UPLOADED

=> s sss full l1
FULL SEARCH INITIATED 21:48:13 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 300 TO ITERATE

100.0% PROCESSED 300 ITERATIONS 47 ANSWERS
SEARCH TIME: 00.00.01

L2 47 SEA SSS FUL L1

=> file caplus biosis uspatful

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	166.94	170.72

FILE 'CAPLUS' ENTERED AT 21:48:25 ON 29 JUL 2006
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CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

=> s l2
L3 16 L2

=> dup rem l3
PROCESSING COMPLETED FOR L3
L4 16 DUP REM L3 (0 DUPLICATES REMOVED)

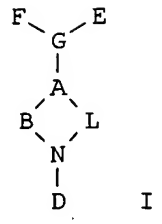
=> focus
PROCESSING COMPLETED FOR L4
L5 16 FOCUS L4 1-

=> d ibib abs hitstr 1-16

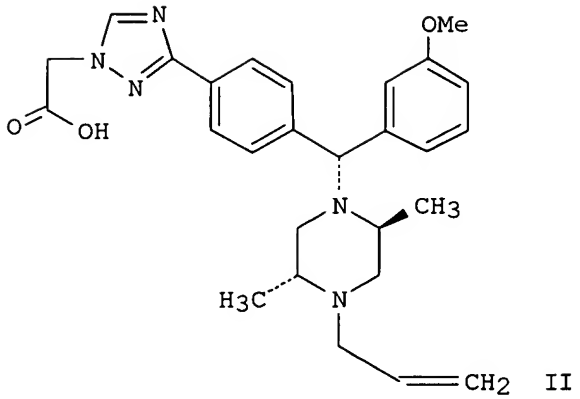
L5 ANSWER 1 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:43346 CAPLUS
DOCUMENT NUMBER: 132:93337
TITLE: Preparation of benzylpiperazine derivatives as delta opioid receptor agonists
INVENTOR(S): Maw, Graham Nigel; Middleton, Donald Stuart
PATENT ASSIGNEE(S): Pfizer Inc., USA
SOURCE: Jpn. Kokai Tokkyo Koho, 289 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000016984	A2	20000118	JP 1999-58364	19990305
JP 3416069	B2	20030616		
US 6200978	B1	20010313	US 1999-261540	19990303
CA 2263957	C	20031007	CA 1999-2263957	19990303
CA 2263957	AA	19990905		
BR 9917527	A	20020723	BR 1999-17527	19990305
PRIORITY APPLN. INFO.:			GB 1998-4734 A	19980305
OTHER SOURCE(S):	MARPAT 132:93337			

GI



I



II

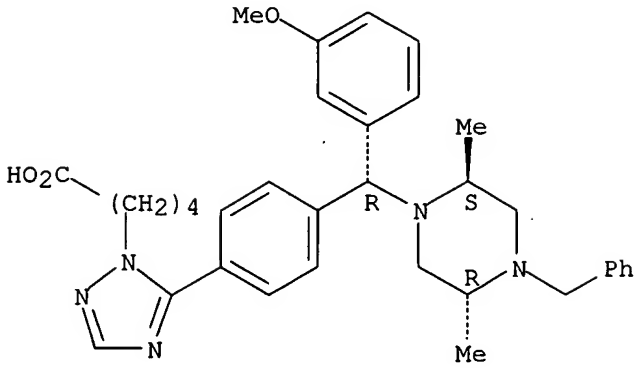
AB Title compds [I; A = N, CX; X = H, c1-4 alkyl; G = CY; Y = H, c1-4alkyl; B = c1-4 hydrocarbonyl; A, B, L, N constitute 5-7 atoms ring; D = H, c1-10 hydrocarbonyl; D linked to B or L forming 5-7 membered-ring; E = OH substituted Ph, c1-4 alkoxy, NH2SO2c1-4alkylene; F = aryl, heterocyclyl (exclude tetrazolyl)], pharmaceutically acceptable salt, solvate, and stereoisomers are prepared and tested as delta opioid receptor agonists and claimed useful in the manufacture of pharmaceutical composition,including method comprising administering to a subject an effective amount of a title compound, for preventing or in treatment of inflammation diseases such as arthritis, psoriasis, asthma, inflammatory bowel disease, disorders of respiratory function, gastro-intestinal disorders, such as functional bowel disease, functional GI disorders (irritable bowel syndrome), functional diarrhea, functional distension, functional pain, non-ulcerogenic dyspepsia, or others associated with disorders of motility or secretion, urogenital tract disorders such as incontinence, as analgesics for treating pain including non-somatic pain, or as immunosuppressants to prevent rejection in organ transplant and skin graft. The title compound II was prepared

IT 254113-26-3P 254113-27-4P 254113-28-5P
254113-29-6P 254113-40-1P 254113-41-2P
254113-42-3P 254113-43-4P 254113-46-7P
254113-47-8P 254113-78-5P 254113-81-0P
254113-83-2P 254113-84-3P 254113-90-1P
254113-96-7P 254113-98-9P 254114-02-8P
254114-05-1P 254114-11-9P 254114-19-7P
254114-20-0P 254114-22-2P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzylpiperazine derivs. as delta opioid receptor agonists)

RN 254113-26-3 CAPLUS

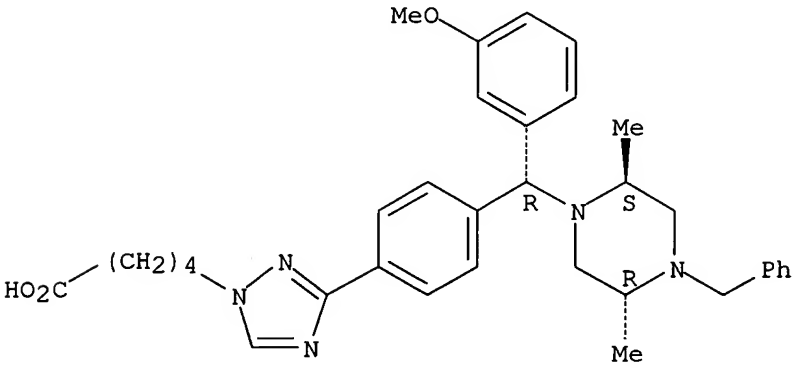
CN 1H-1,2,4-Triazole-1-pentanoic acid, 5-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-methoxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



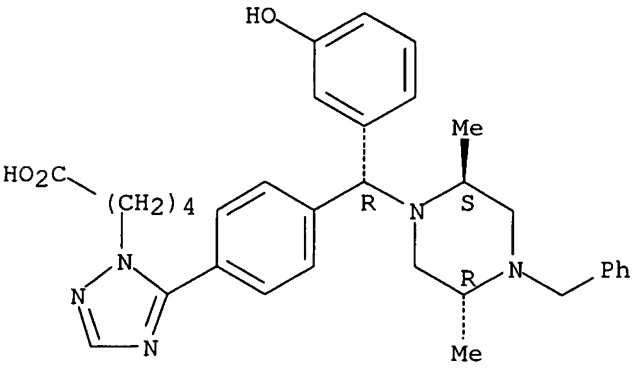
RN 254113-27-4 CAPLUS
CN 1H-1,2,4-Triazole-1-pentanoic acid, 3-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-methoxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 254113-28-5 CAPLUS
CN 1H-1,2,4-Triazole-1-pentanoic acid, 5-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

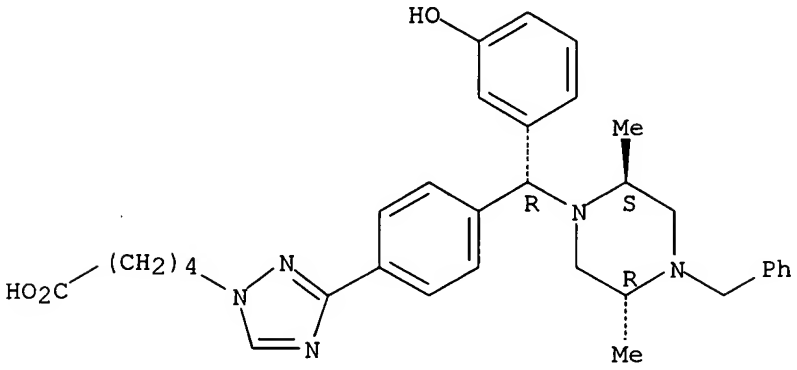
Absolute stereochemistry.



RN 254113-29-6 CAPLUS
CN 1H-1,2,4-Triazole-1-pentanoic acid, 3-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-

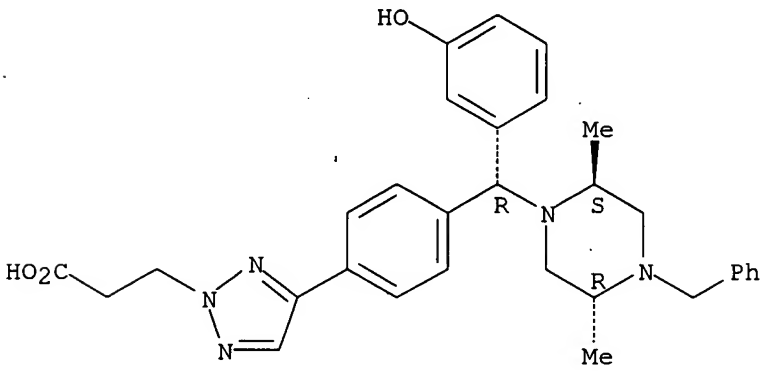
(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



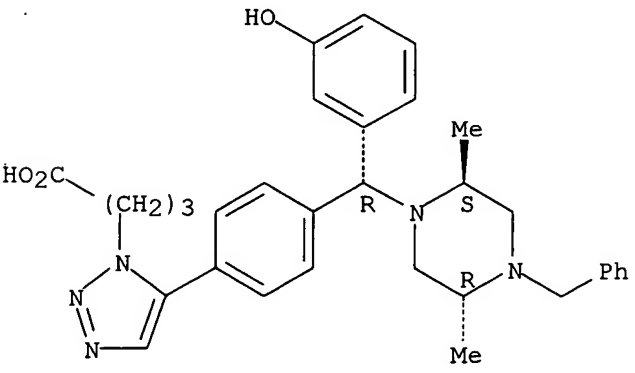
RN 254113-40-1 CAPLUS
CN 2H-1,2,3-Triazole-2-propanoic acid, 4-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



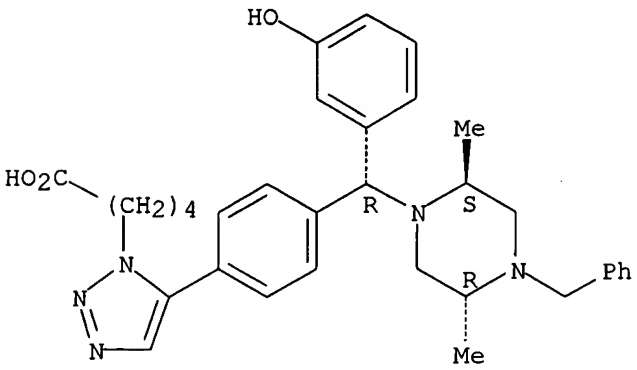
RN 254113-41-2 CAPLUS
CN 1H-1,2,3-Triazole-1-butanoic acid, 5-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



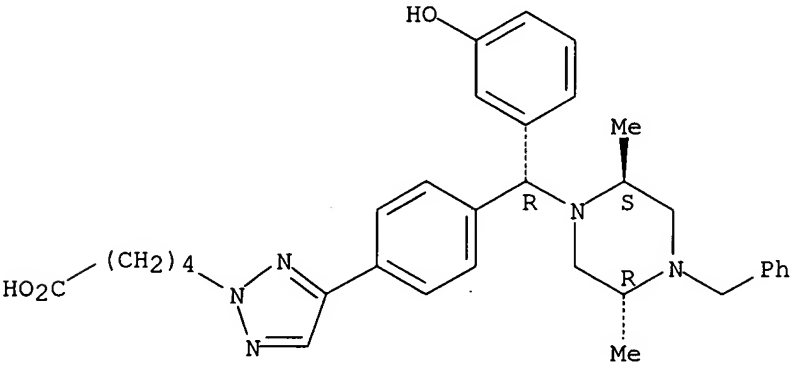
RN 254113-42-3 CAPLUS
CN 1H-1,2,3-Triazole-1-pentanoic acid, 5-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



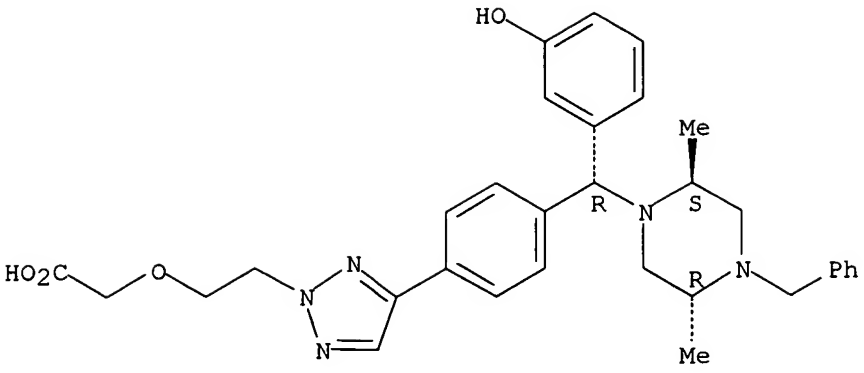
RN 254113-43-4 CAPLUS
CN 2H-1,2,3-Triazole-2-pentanoic acid, 4-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



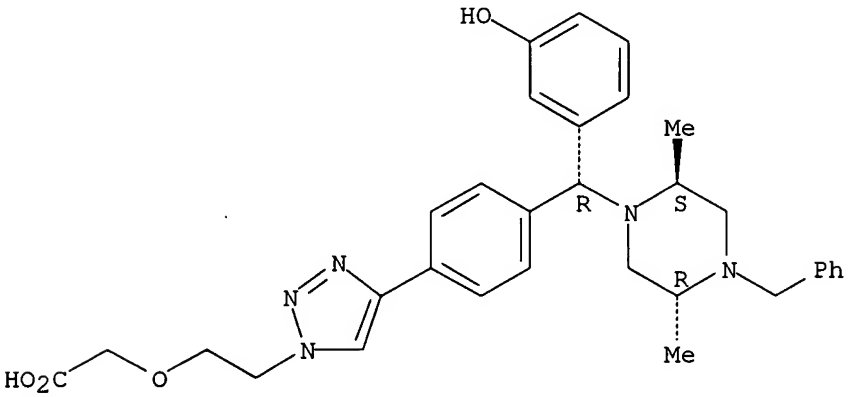
RN 254113-46-7 CAPLUS
CN Acetic acid, [2-[4-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]-2H-1,2,3-triazol-2-yl]ethoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



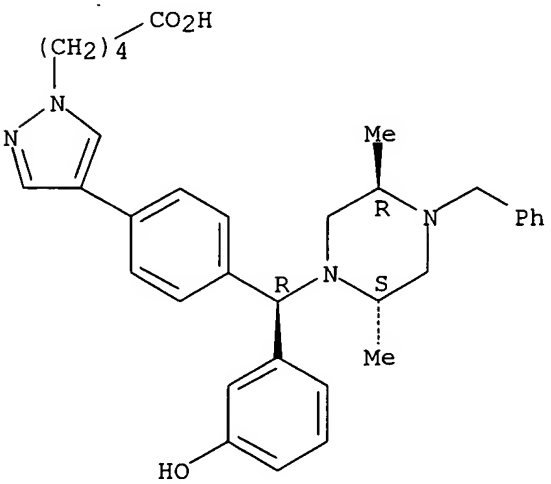
RN 254113-47-8 CAPLUS
CN Acetic acid, [2-[4-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]-1H-1,2,3-triazol-1-yl]ethoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



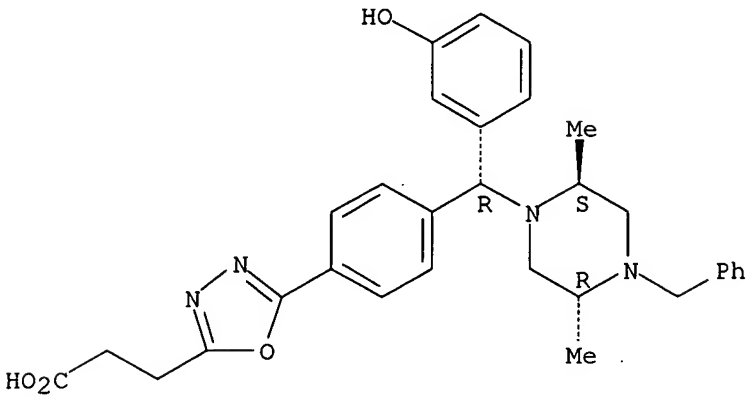
RN 254113-78-5 CAPLUS
CN 1H-Pyrazole-1-pentanoic acid, 4-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



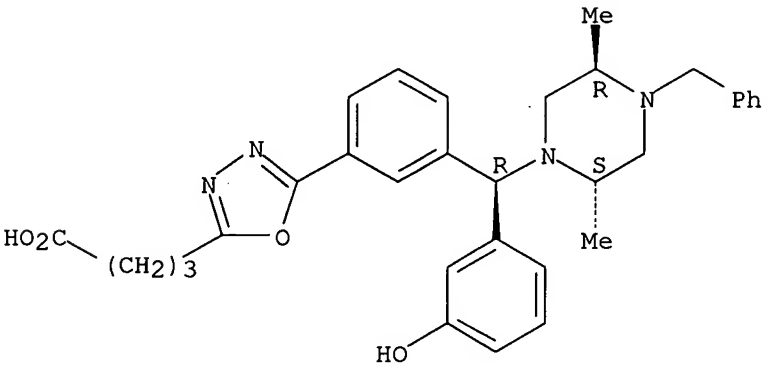
RN 254113-81-0 CAPLUS
CN 1,3,4-Oxadiazole-2-propanoic acid, 5-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



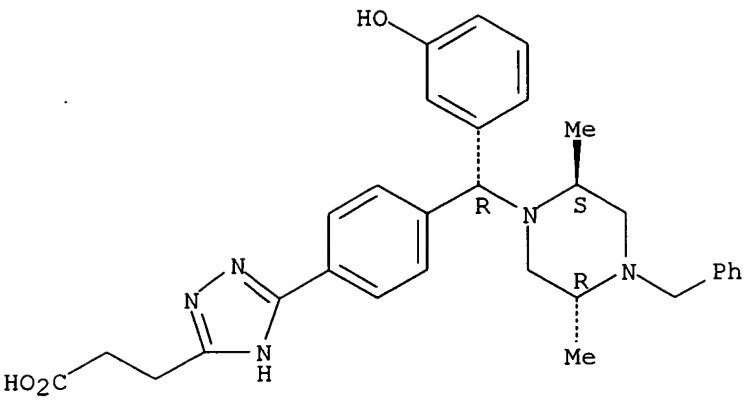
RN 254113-83-2 CAPLUS
CN 1,3,4-Oxadiazole-2-butanoic acid, 5-[3-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



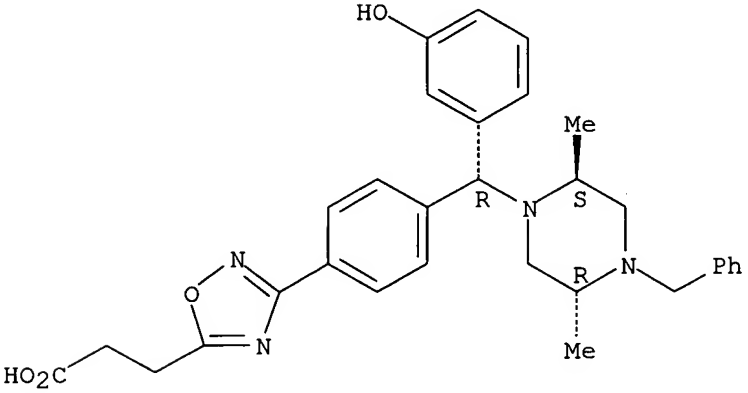
RN 254113-84-3 CAPLUS
CN 1H-1,2,4-Triazole-3-propanoic acid, 5-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



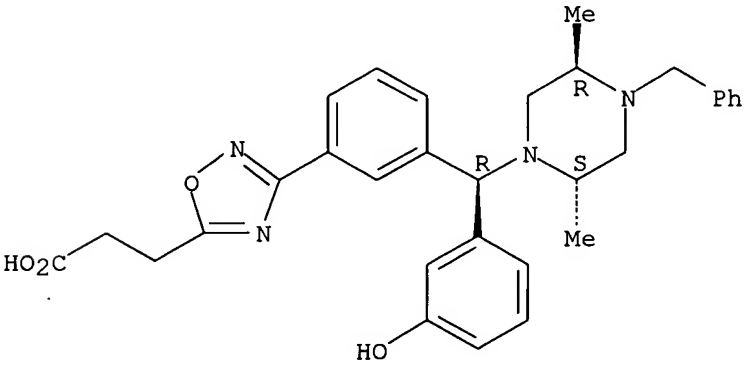
RN 254113-90-1 CAPLUS
CN 1,2,4-Oxadiazole-5-propanoic acid, 3-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 254113-96-7 CAPLUS
CN 1,2,4-Oxadiazole-5-propanoic acid, 3-[3-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

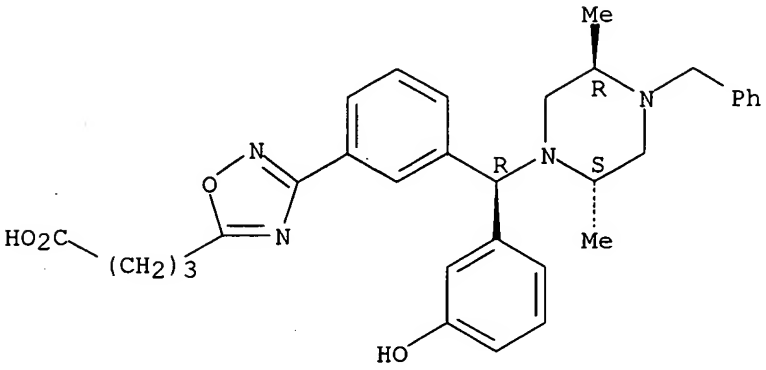
Absolute stereochemistry.



RN 254113-98-9 CAPLUS
CN 1,2,4-Oxadiazole-5-butanoic acid, 3-[3-[(R)-[(2S,5R)-2,5-dimethyl-4-

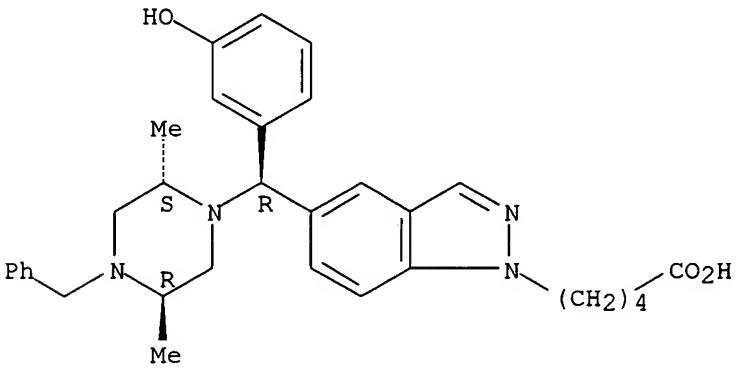
(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



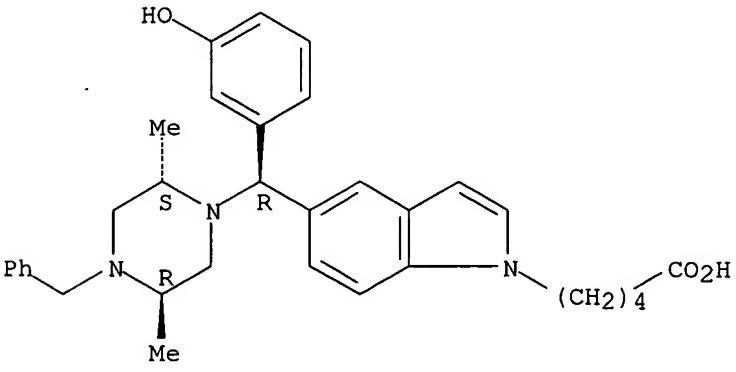
RN 254114-02-8 CAPLUS
CN 1H-Indazole-1-pentanoic acid, 5-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



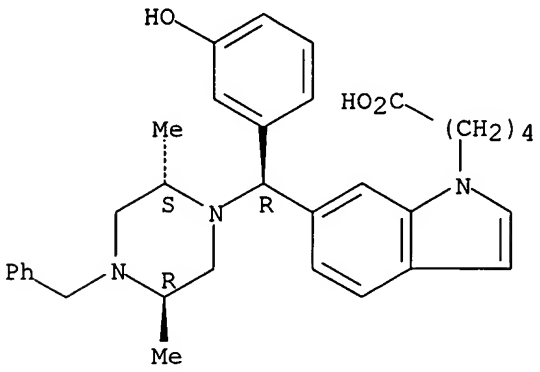
RN 254114-05-1 CAPLUS
CN 1H-Indole-1-pentanoic acid, 5-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



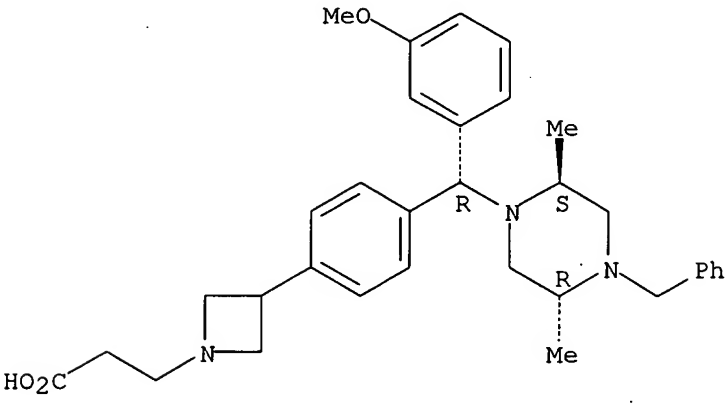
RN 254114-11-9 CAPLUS
CN 1H-Indole-1-pentanoic acid, 6-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



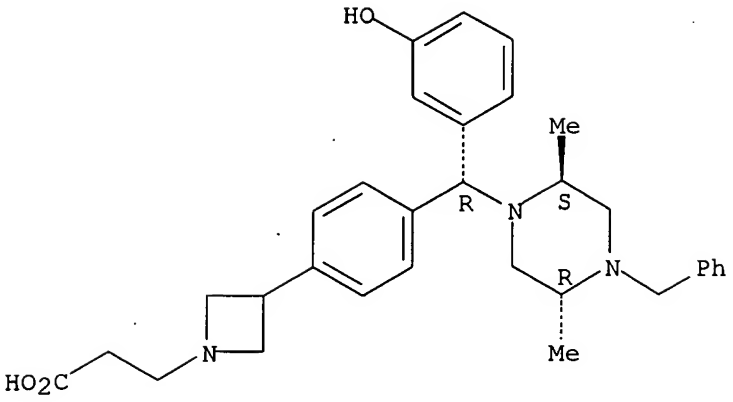
RN 254114-19-7 CAPLUS
CN 1-Azetidinepropanoic acid, 3-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-methoxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



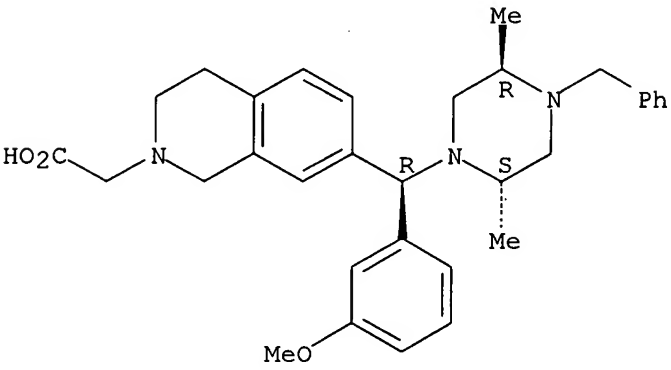
RN 254114-20-0 CAPLUS
CN 1-Azetidinepropanoic acid, 3-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

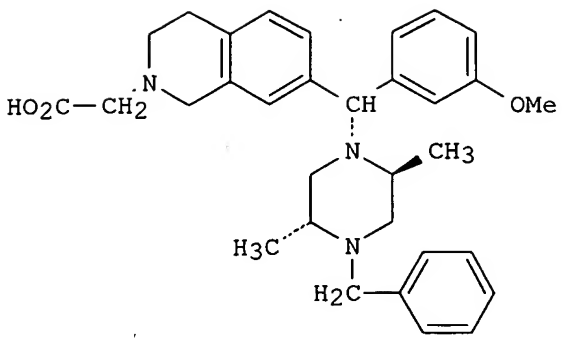


RN 254114-22-2 CAPLUS
CN 2(1H)-Isoquinolineacetic acid, 7-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-methoxyphenyl)methyl]-3,4-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:16597 CAPLUS
DOCUMENT NUMBER: 144:205142
TITLE: Highly potent and selective zwitterionic agonists of the δ-opioid receptor. Part 1
AUTHOR(S): Middleton, Donald S.; Maw, Graham N.; Challenger, Clare; Jessiman, Alan; Johnson, Patrick S.; Million, William A.; Nichols, Carly L.; Price, Jenny A.; Trevethick, Michael
CORPORATE SOURCE: Department of Discovery Chemistry, Pfizer Global Research and Development, Sandwich, Kent, CT13 9NJ, UK
SOURCE: Bioorg. Med. Chem. Lett. (2006), 16(4), 905-910
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

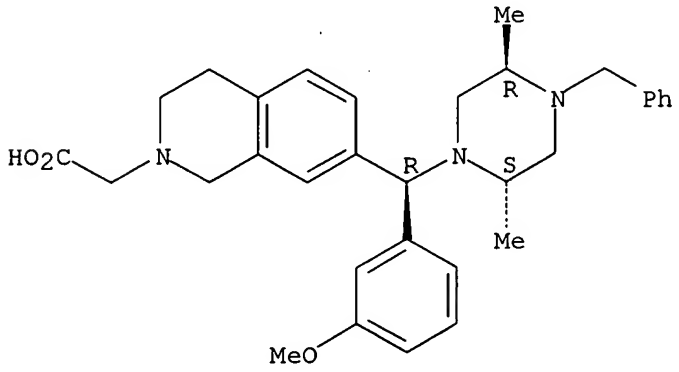
AB A series of zwitterionic δ-opioid agonists, with targeted physicochem., as a strategy to limit potential for CNS exposure, were prepared These agents were found to possess exquisite potency and selectivity over mu and κ-opiate activity. Furthermore, analog (I) was found to display restricted CNS exposure, as evidenced by its inactivity in a rodent hyperlocomotion assay of central opiate activity. Dog pharmacokinetic studies on I indicated encouraging oral bioavailability.

IT 254114-22-2P
RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn and structure activity relations of highly potent and selective zwitterionic agonists of the δ-opioid receptor)

RN 254114-22-2 CAPLUS

CN 2(1H)-Isoquinolineacetic acid, 7-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-methoxyphenyl)methyl]-3,4-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

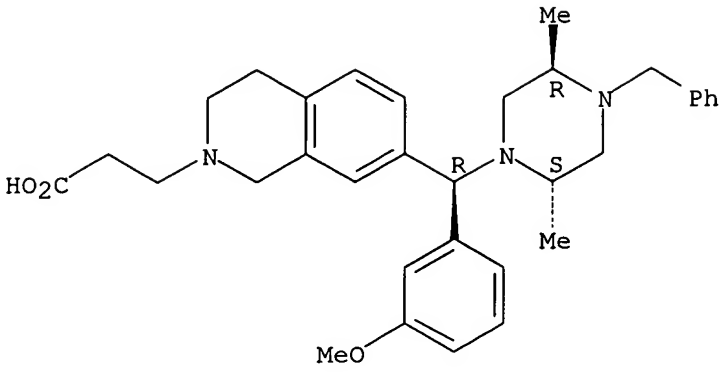


IT 875899-83-5P 875899-84-6P 875899-85-7P
875899-86-8P 875899-90-4P
RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn and structure activity relations of highly potent and selective zwitterionic agonists of the δ-opioid receptor)

RN 875899-83-5 CAPLUS

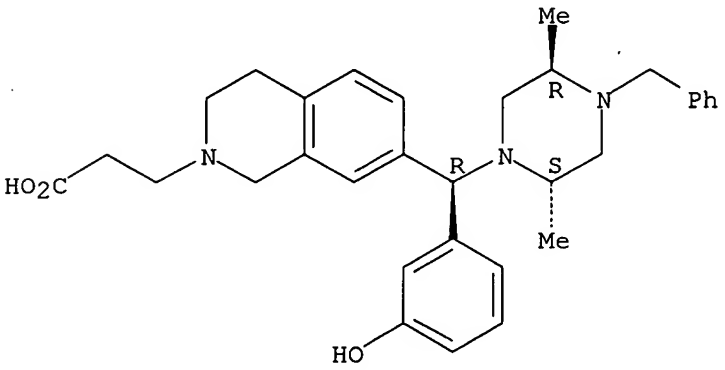
CN 2(1H)-Isoquinolinepropanoic acid, 7-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-methoxyphenyl)methyl]-3,4-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



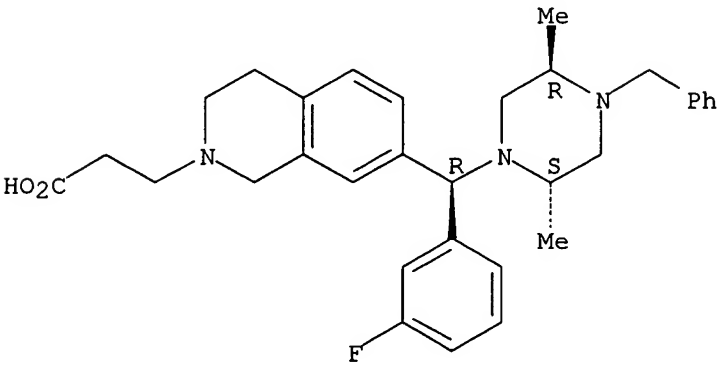
RN 875899-84-6 CAPLUS
CN 2(1H)-Isoquinolinepropanoic acid, 7-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]-3,4-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 875899-85-7 CAPLUS
CN 2(1H)-Isoquinolinepropanoic acid, 7-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-fluorophenyl)methyl]-3,4-dihydro- (9CI) (CA INDEX NAME)

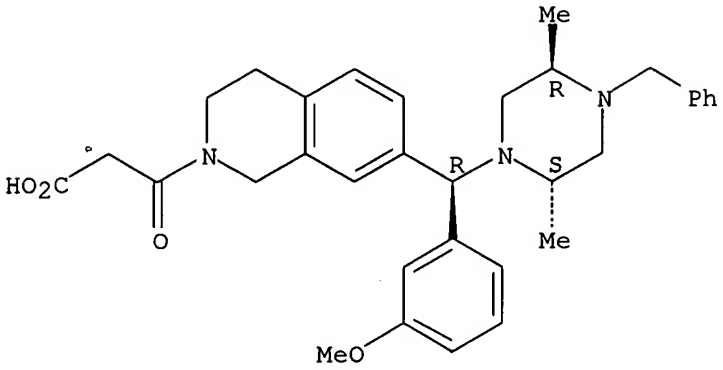
Absolute stereochemistry.



RN 875899-86-8 CAPLUS
CN 2(1H)-Isoquinolinepropanoic acid, 7-[(R)-[(2S,5R)-2,5-dimethyl-4-

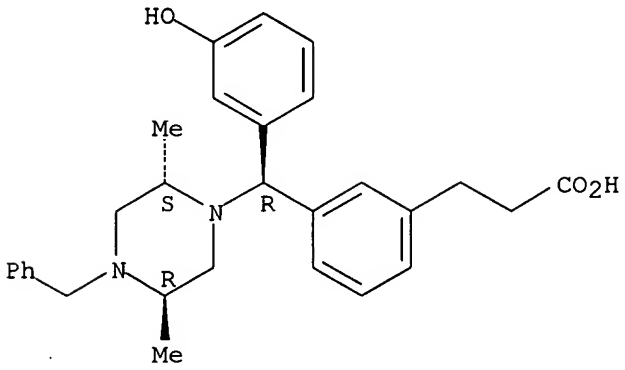
(phenylmethyl)-1-piperazinyl](3-methoxyphenyl)methyl]-3,4-dihydro-β-oxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



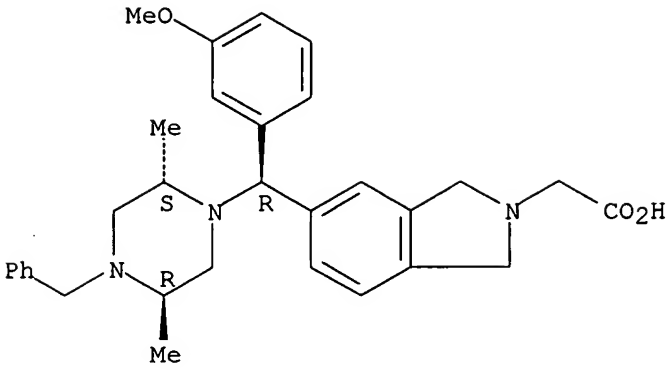
RN 875899-90-4 CAPLUS
CN Benzenepropanoic acid, 3-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



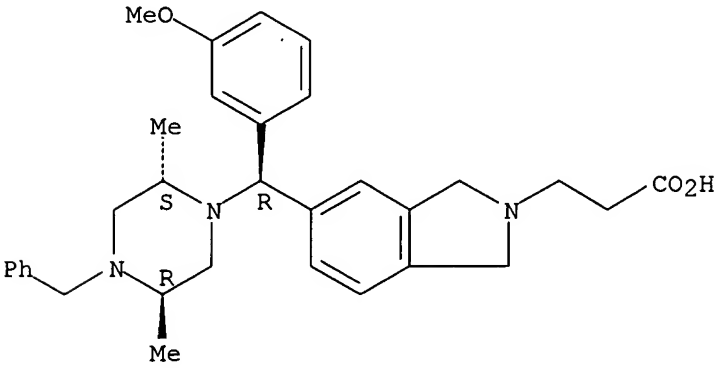
IT 875899-74-4P 875899-76-6P 875899-77-7P
875899-78-8P 875899-79-9P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn and structure activity relations of highly potent and selective zwitterionic agonists of the δ-opioid receptor)
RN 875899-74-4 CAPLUS
CN 2H-Isoindole-2-acetic acid, 5-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-methoxyphenyl)methyl]-1,3-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



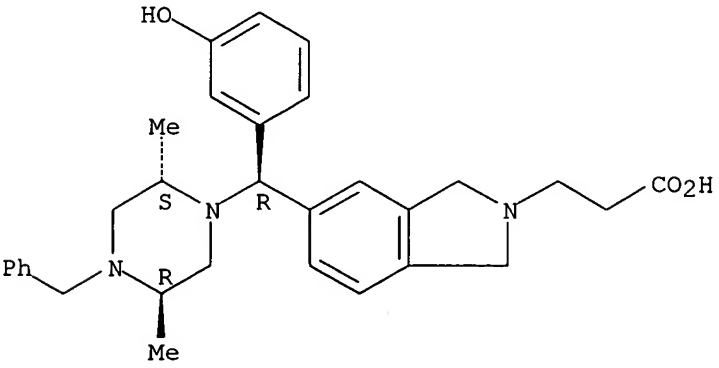
RN 875899-76-6 CAPLUS
CN 2H-Isoindole-2-propanoic acid, 5-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-methoxyphenyl)methyl]-1,3-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



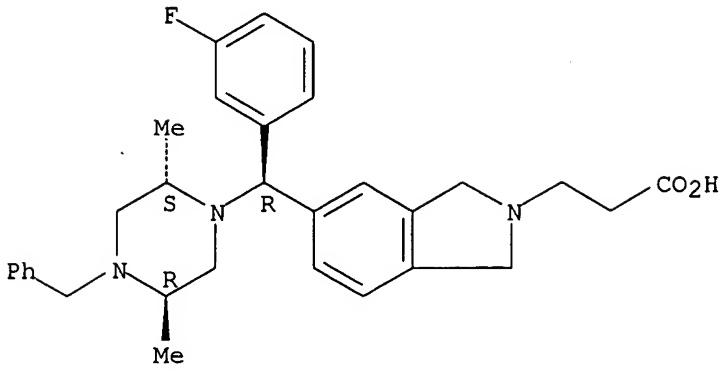
RN 875899-77-7 CAPLUS
CN 2H-Isoindole-2-propanoic acid, 5-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]-1,3-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



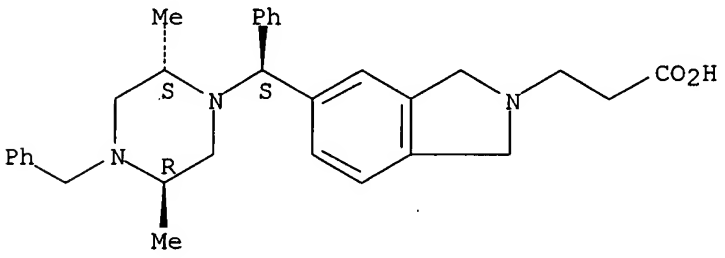
RN 875899-78-8 CAPLUS
CN 2H-Isoindole-2-propanoic acid, 5-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-fluorophenyl)methyl]-1,3-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 875899-79-9 CAPLUS
CN 2H-Isoindole-2-propanoic acid, 5-[(S)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl]phenylmethyl]-1,3-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:551384 CAPLUS
DOCUMENT NUMBER: 139:117440
TITLE: Preparation of novel piperazinylbenzyl derivatives and method of treating premature ejaculation with these and known delta opioid receptor agonists
INVENTOR(S): Chank, Kwen-jen; King, Klim; Biciunas, Kestutis P.; Mcnutt, Robert W.; Pendergast, William; Jan, Shyi-tai
PATENT ASSIGNEE(S): Ardent Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 138 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003057223	A1	20030717	WO 2003-US87	20030102
WO 2003057223	C2	20040429		
WO 2003057223	C1	20040729		

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LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,
UG, UZ, VN, YU, ZA, ZM, ZW
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KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
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BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003214800	A1	20030724	AU 2003-214800		20030102
US 2003186872	A1	20031002	US 2003-335764		20030102
EP 1469850	A1	20041027	EP 2003-710631		20030102
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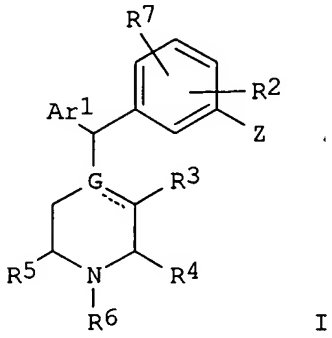
NO 2004003240	A	20040802	NO 2004-3240		20040802
PRIORITY APPLN. INFO.:			US 2002-345216P	P	20020102
			WO 2003-US87	W	20030102

OTHER SOURCE(S): MARPAT 139:117440
GI



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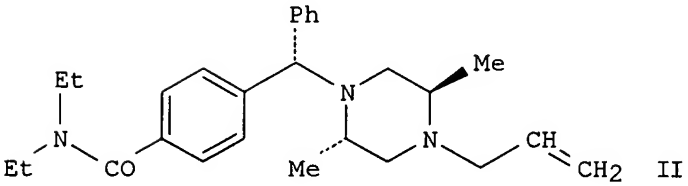


II

AB Compns. and methods for treatment of sexual dysfunctions (particularly premature ejaculation) by administering to a subject a pharmaceutical composition comprising a delta opioid receptor agonist (known compds. such as deltorphin I as well as new piperazinylbenzyl compds. shown as I; variables defined below; e.g. 4-[(αS)-α-((2S,5R)-4-allyl-2,5-dimethyl-1-piperazinyl)benzyl]-N,N-diethylbenzamide (shown as II)) in an amount effective to delay the onset of ejaculation in the subject during sexual stimulation are claimed. Blocking the delta opioid receptor by the selective antagonist naltrindole eliminated the effect of the known delta opioid receptor agonist SNC-80 on ejaculation, indicating that activation of the receptor reduced the electroejaculation in male mice. Binding affinity to delta opioid receptors and EDs and % ejaculation inhibition in mice for some examples of I are tabulated. Although the methods of preparation are not claimed, .apprx.40 example prepns. of I are included. For I: Ar1 is a 5- or 6-member carbocyclic or heterocyclic aromatic ring with atoms C, N, O and S and may include thiophenyl, thiazolyl, furanyl, pyrrolyl, Ph, or pyridyl, and having on a 1st C atom thereof a substituent Y (e.g. H, halo, C1-6 acyl) and on a 2nd ring C thereof a substituent R1 (e.g. H, halo, C1-4 alkyl). Z = H, hydroxy and carboxy and esters thereof; alkoxy,

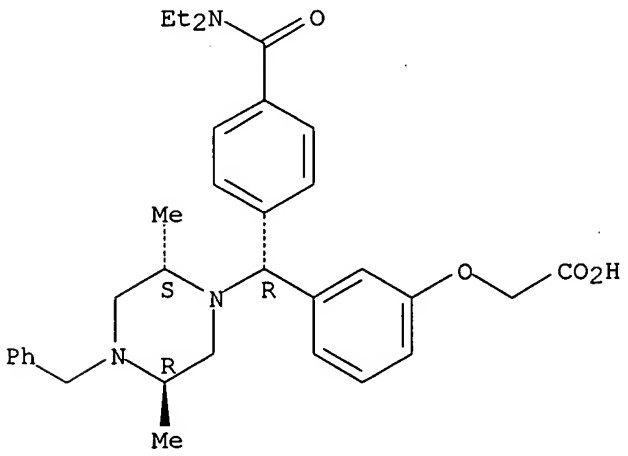
carboxyalkoxy, alkoxycarboxylic acid, hydroxymethyl, and esters thereof; and amino, carboxamides and sulfonamides thereof; G is C or N; R2 is H, halogen, or C1-C4 alkyl, C2-C4 alkenyl, C2-C4 alkynyl; R3, R4 and R5 = H and Me, and wherein at least one of R3, R4 or R5 is not H, subject to the proviso that the total number of Me groups does not exceed two, or any two of R3, R4 and R5 together may form a bridge = 1-3 C atoms;. R6 = H, C1-6 alkyl, C2-6 alkenyl, etc.; R7 = H, F; addnl. details are given in the claims; although general structures other than I are claimed, all of the examples appear to fit the I structure.

IT 561068-36-8P, 3-[(αR)-α-((2S,5R)-4-Benzyl-2,5-dimethyl-1-piperazinyl)-4-(diethylaminocarbonyl)benzyl]phenoxyacetic acid 561068-37-9P, 3-[(αR)-4-(Diethylaminocarbonyl)-α-[(2S,5R)-2,5-dimethyl-4-(4-fluorobenzyl)-1-piperazinyl]benzyl]phenoxyaceti c acid 561068-66-4P, [3-[[(2R,5S)-4-[(R)-(3-Diethylcarbamoylphenyl)(3-hydroxyphenyl)methyl]-2,5-dimethylpiperazin-1-yl]methyl]phenoxy]acetic acid 561068-68-6P, [3-[[(2R,5S)-4-[(R)-(3-Diethylcarbamoylphenyl)(3-methoxyphenyl)methyl]-2,5-dimethylpiperazin-1-yl]methyl]phenoxy]acetic acid 561068-76-6P, [3-[(R)-(3-Diethylcarbamoylphenyl)[(2S,5R)-4-(3-hydroxybenzyl)-2,5-dimethylpiperazin-1-yl]methyl]phenoxy]acetic acid 561068-77-7P, [3-[(R)-(3-Diethylcarbamoylphenyl)[(2S,5R)-4-(3-methoxybenzyl)-2,5-dimethylpiperazin-1-yl]methyl]phenoxy]acetic acid 561068-78-8P, [3-[[(2R,5S)-4-[(R)-[3-(Carboxymethoxy)phenyl](3-diethylcarbamoylphenyl)methyl]-2,5-dimethylpiperazin-1-yl]methyl]phenoxy]acetic acid
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of novel piperazinylbenzyl derivs. and method of treating premature ejaculation with these and known delta opioid receptor agonists)

RN 561068-36-8 CAPLUS

CN Acetic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl]methyl]phenoxy]- (9CI) (CA INDEX NAME)

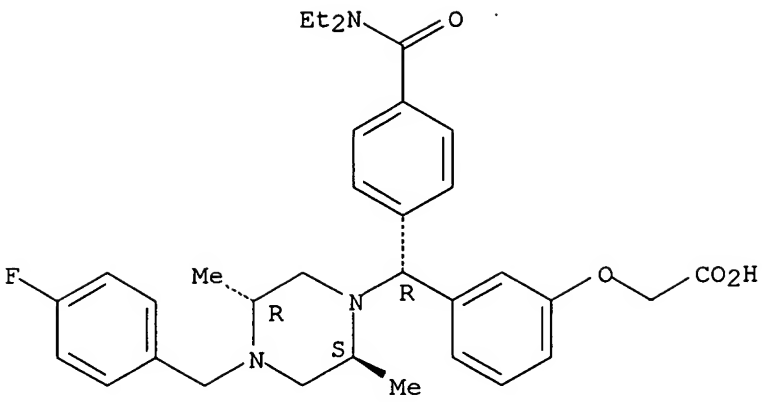
Absolute stereochemistry.



RN 561068-37-9 CAPLUS

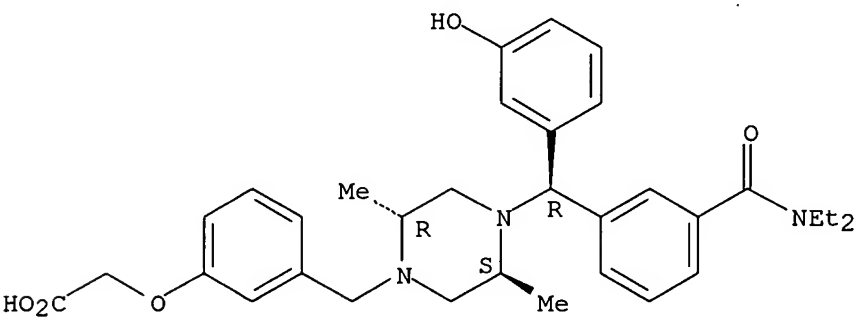
CN Acetic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][(2S,5R)-4-[(4-fluorophenyl)methyl]-2,5-dimethyl-1-piperazinyl]methyl]phenoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



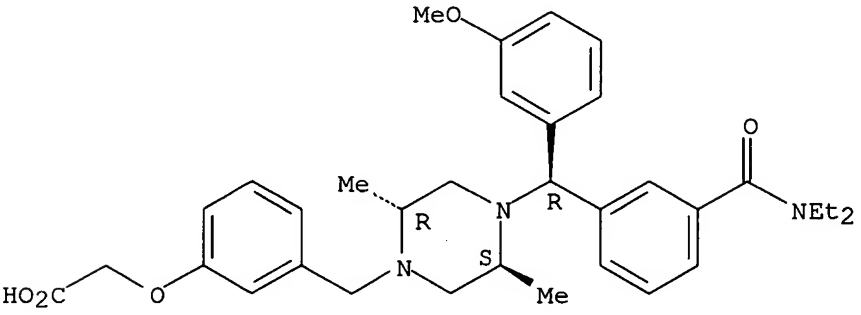
RN 561068-66-4 CAPLUS
CN Acetic acid, [3-[[(2R,5S)-4-[(R)-[3-[(diethylamino)carbonyl]phenyl](3-hydroxyphenyl)methyl]-2,5-dimethyl-1-piperazinyl]methyl]phenoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



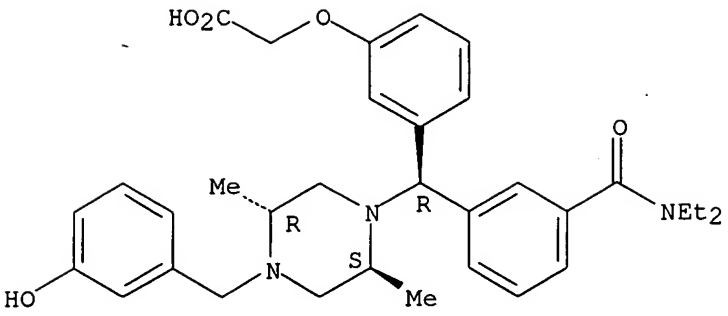
RN 561068-68-6 CAPLUS
CN Acetic acid, [3-[[(2R,5S)-4-[(R)-[3-[(diethylamino)carbonyl]phenyl](3-methoxyphenyl)methyl]-2,5-dimethyl-1-piperazinyl]methyl]phenoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



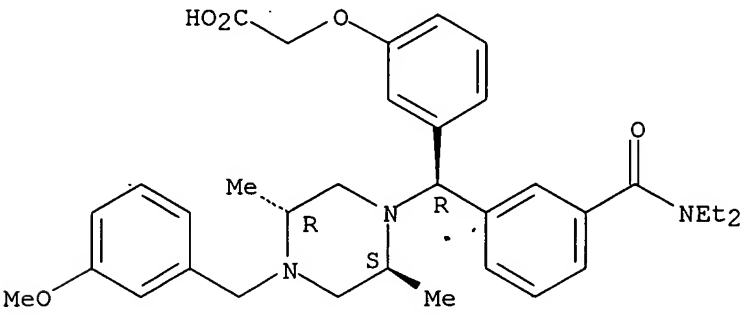
RN 561068-76-6 CAPLUS
CN Acetic acid, [3-[(R)-[3-[(diethylamino)carbonyl]phenyl][(2S,5R)-4-[(3-hydroxyphenyl)methyl]-2,5-dimethyl-1-piperazinyl]methyl]phenoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



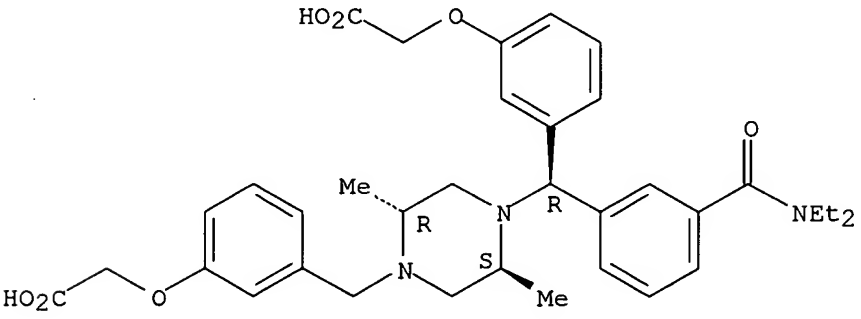
RN 561068-77-7 CAPLUS
CN Acetic acid, [3-[(R)-[3-[(diethylamino)carbonyl]phenyl][(2S,5R)-4-[(3-methoxyphenyl)methyl]-2,5-dimethyl-1-piperazinyl]methyl]phenoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 561068-78-8 CAPLUS
CN Acetic acid, [3-[[(2R,5S)-4-[(R)-[3-(carboxymethoxy)phenyl][3-[(diethylamino)carbonyl]phenyl]methyl]-2,5-dimethyl-1-piperazinyl]methyl]phenoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



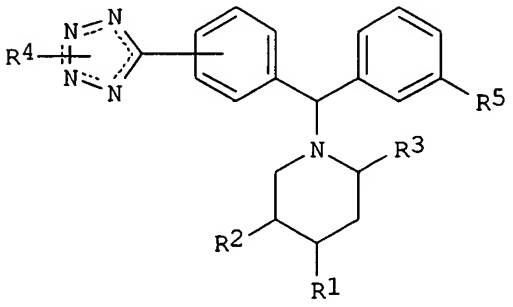
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:789135 CAPLUS
DOCUMENT NUMBER: 130:25058
TITLE: Preparation of antiinflammatory piperazinylbenzyltetrazole derivatives
INVENTOR(S): Maw, Graham Nigel
PATENT ASSIGNEE(S): Pfizer Ltd., UK; Pfizer Inc.

SOURCE: PCT Int. Appl., 138 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9852929	A1	19981126	WO 1998-EP2277	19980417
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9876449	A1	19981211	AU 1998-76449	19980417
EP 983251	A1	20000308	EP 1998-924137	19980417
EP 983251	B1	20040623		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
BR 9809648	A	20000711	BR 1998-9648	19980417
JP 2000513024	T2	20001003	JP 1998-549851	19980417
CA 2290501	C	20030708	CA 1998-2290501	19980417
CA 2290501	AA	19981126		
AT 269852	E	20040715	AT 1998-924137	19980417
PT 983251	T	20040831	PT 1998-924137	19980417
ES 2221985	T3	20050116	ES 1998-924137	19980417
ZA 9804158	A	19991119	ZA 1998-4158	19980518
US 6514975	B1	20030204	US 1999-367322	19990811
MX 9910800	A	20000430	MX 1999-10800	19991119
PRIORITY APPLN. INFO.:			GB 1997-9972 A	19970519
			WO 1998-EP2277 W	19980417

OTHER SOURCE(S): MARPAT 130:25058
GI



I

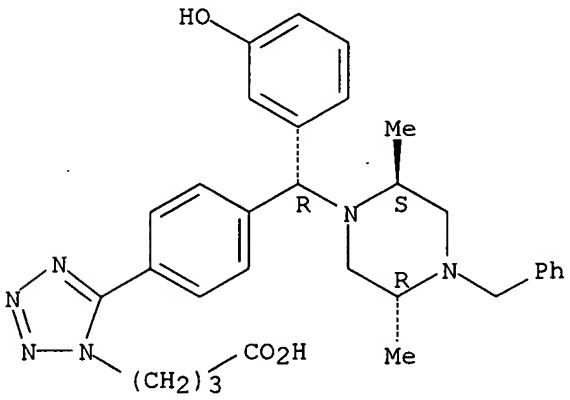
AB Tetrazoles I [R1 = H, C2-C6 alkanoyl, C1-C6 alkyl, C2-C6 alkenyl, C2-C6 alkynyl, C3-C7 cycloalkyl, (C3-C7 cycloalkyl)-(C1-C4 alkyl), (C1-C4 alkoxy)-(C1-C4 alkyl), carboxy-(C1-C4 alkyl), aryl-(C1-C4 alkyl), heteroaryl-(C1-C4 alkyl); R2, R3 = H, C1-C4 alkyl; R4 = H, a group of the formula R6(CH2)mZ(CH2)n, where m = 0, 1, 2 or 3, n is 1, 2 or 3, Z is a direct link or O, and R6 is CO2H or CO2(C1-C4 alkyl), etc.; R5 = hydroxy, C1-C4 alkoxy, NHSO2(C1-C4 alkyl); with the proviso that when Z is O, m is 1, 2, or 3 and n is 2 or 3], selective agonists for the delta opioid receptor, were prepared E.g., Et 4-(5-{4-[(R,S)-α-(4-allyl-1-piperazinyl)-3-hydroxybenzyl]phenyl}-1-tetrazolyl)butyrate was prepared in several steps.

IT 216531-27-0P 216531-28-1P 216531-29-2P
216531-30-5P 216531-31-6P 216531-32-7P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of piperazinylbenzyltetrazoles as selective agonists for the delta opioid receptor)

RN 216531-27-0 CAPLUS

CN 1H-Tetrazole-1-butanoic acid, 5-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

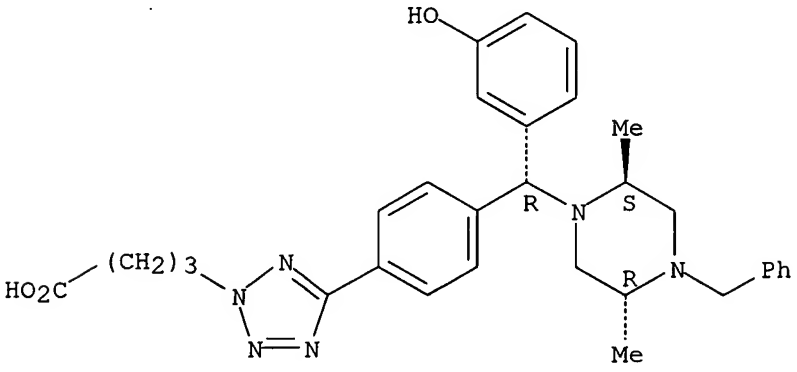
Absolute stereochemistry. Rotation (-).



RN 216531-28-1 CAPLUS

CN 2H-Tetrazole-2-butanoic acid, 5-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

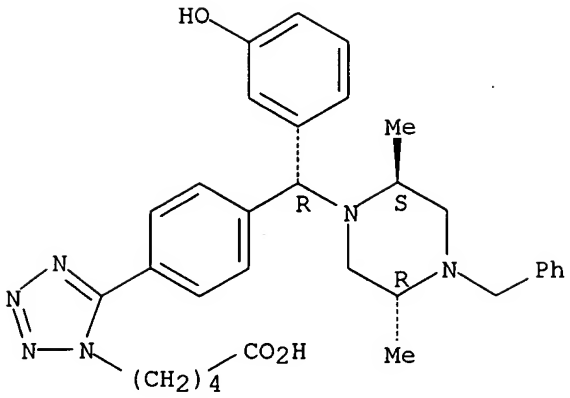
Absolute stereochemistry. Rotation (-).



RN 216531-29-2 CAPLUS

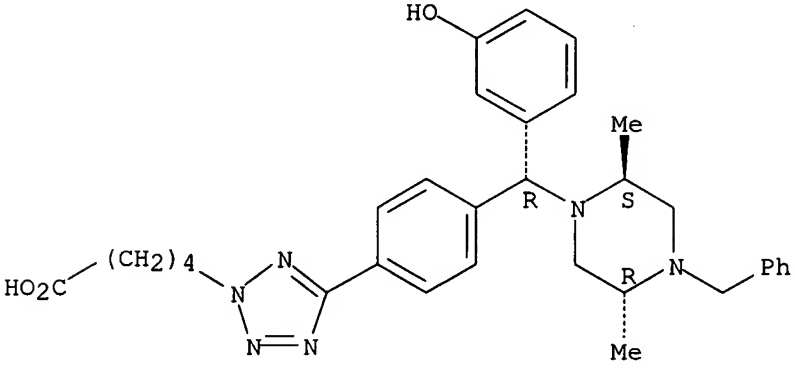
CN 1H-Tetrazole-1-pentanoic acid, 5-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



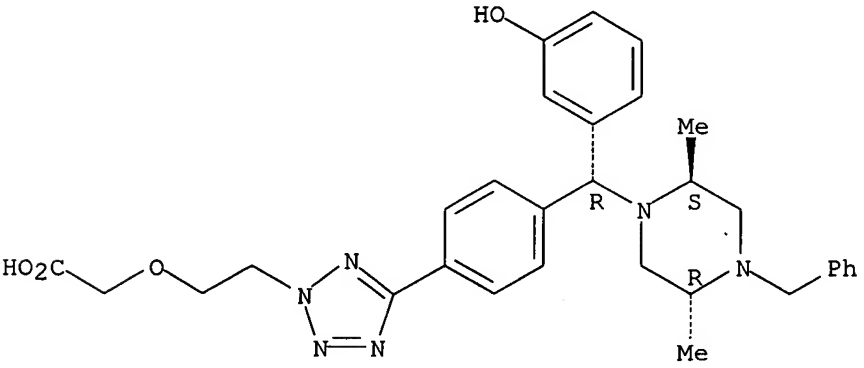
RN 216531-30-5 CAPLUS
CN 2H-Tetrazole-2-pentanoic acid, 5-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 216531-31-6 CAPLUS
CN Acetic acid, [2-[5-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]-2H-tetrazol-2-yl]ethoxy]- (9CI) (CA INDEX NAME)

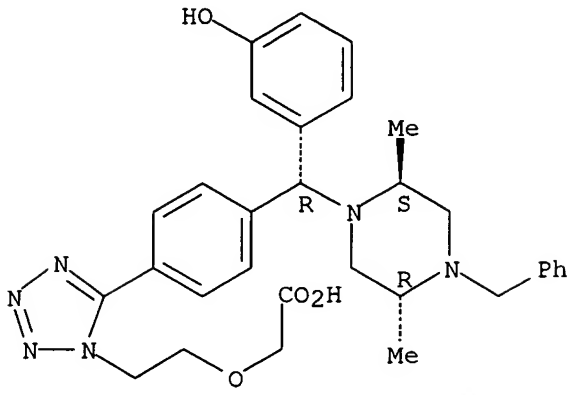
Absolute stereochemistry. Rotation (+).



RN 216531-32-7 CAPLUS
CN Acetic acid, [2-[5-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]-1H-tetrazol-1-yl]ethoxy]-

(9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 16 USPATFULL on STN

ACCESSION NUMBER:	2001:36825 USPATFULL
TITLE:	Compounds as delta opioid agonists
INVENTOR(S):	Maw, Graham Nigel, Sandwich, United Kingdom Middleton, Donald Stuart, Sandwich, United Kingdom
PATENT ASSIGNEE(S):	Pfizer Inc., New York, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6200978	B1	20010313	
APPLICATION INFO.:	US 1999-261540		19990303	(9)

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1998-4734	19980305

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Stockton, Laura L.
LEGAL REPRESENTATIVE:	Richardson, Peter C., Benson, Gregg C., Olson, A. Dean
NUMBER OF CLAIMS:	16
EXEMPLARY CLAIM:	1
LINE COUNT:	4413

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compounds of the formula (I)--shown below--are described. ##STR1##

The compounds are useful in the manufacture of a pharmaceutical composition for preventing or treating inflammatory diseases such as arthritis, psoriasis, asthma, or inflammatory bowel disease, disorders of respiratory function, gastrointestinal disorders such as functional bowel disease, functional GI disorders such as irritable bowel syndrome, functional diarrhoea, functional distension, functional pain, non-ulcerogenic dyspepsia or others associated with disorders of motility or secretion, urogenital tract disorders such as incontinence, as analgesics for treating pain including non-somatic pain, or as immunosuppressants to prevent rejection in organ transplant and skin graft.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

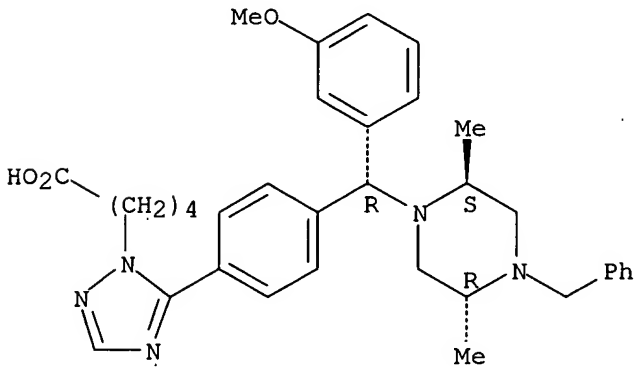
IT 254113-26-3P 254113-27-4P 254113-28-5P

254113-29-6P 254113-40-1P 254113-41-2P
254113-42-3P 254113-43-4P 254113-46-7P
254113-47-8P 254113-78-5P 254113-81-0P
254113-83-2P 254113-84-3P 254113-90-1P
254113-96-7P 254113-98-9P 254114-02-8P
254114-05-1P 254114-11-9P 254114-19-7P
254114-20-0P 254114-22-2P
(preparation of benzylpiperazine derivs. as delta opioid receptor agonists)

RN 254113-26-3 USPATFULL

CN 1H-1,2,4-Triazole-1-pentanoic acid, 5-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-methoxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

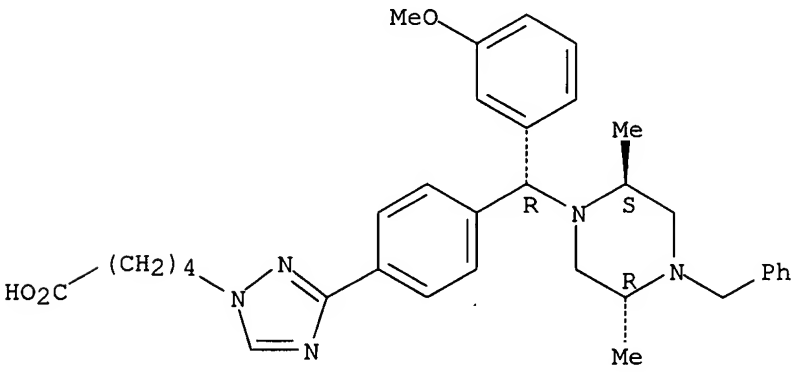
Absolute stereochemistry.



RN 254113-27-4 USPATFULL

CN 1H-1,2,4-Triazole-1-pentanoic acid, 3-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-methoxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

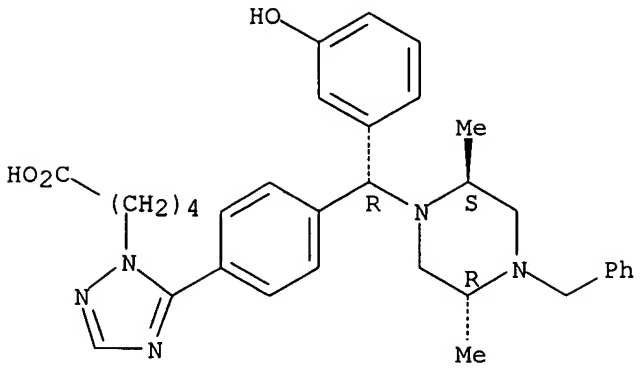
Absolute stereochemistry.



RN 254113-28-5 USPATFULL

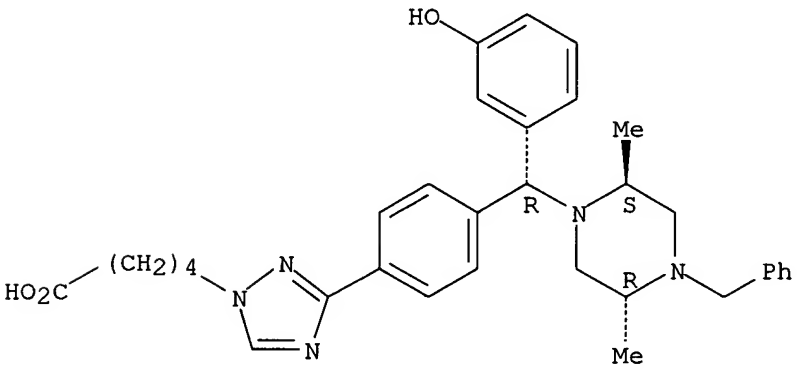
CN 1H-1,2,4-Triazole-1-pentanoic acid, 5-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



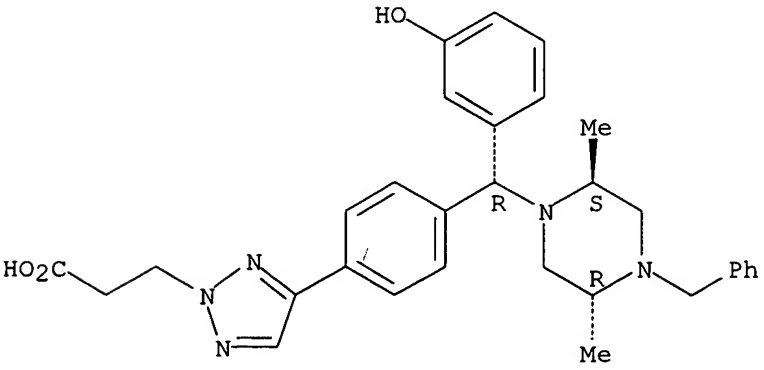
RN 254113-29-6 USPATFULL
CN 1H-1,2,4-Triazole-1-pentanoic acid, 3-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



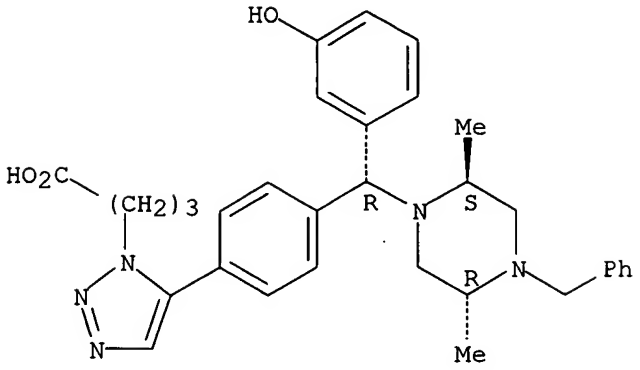
RN 254113-40-1 USPATFULL
CN 2H-1,2,3-Triazole-2-propanoic acid, 4-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



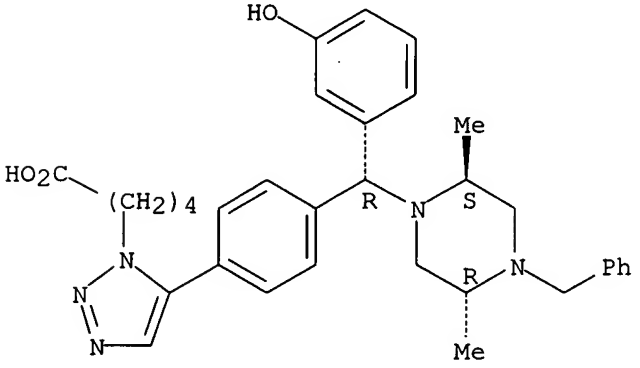
RN 254113-41-2 USPATFULL
CN 1H-1,2,3-Triazole-1-butanoic acid, 5-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



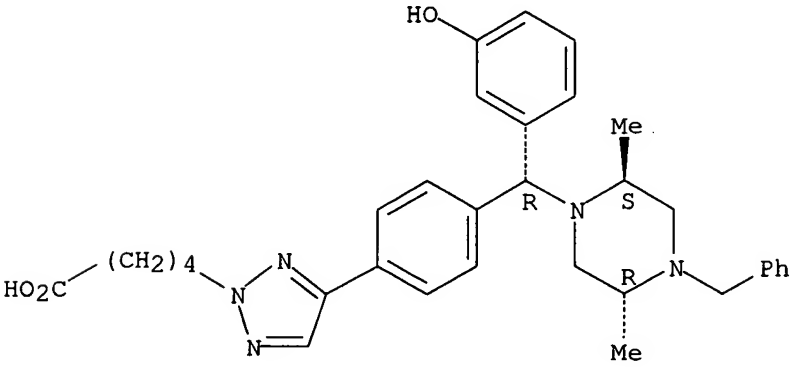
RN 254113-42-3 USPATFULL
CN 1H-1,2,3-Triazole-1-pentanoic acid, 5-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 254113-43-4 USPATFULL
CN 2H-1,2,3-Triazole-2-pentanoic acid, 4-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

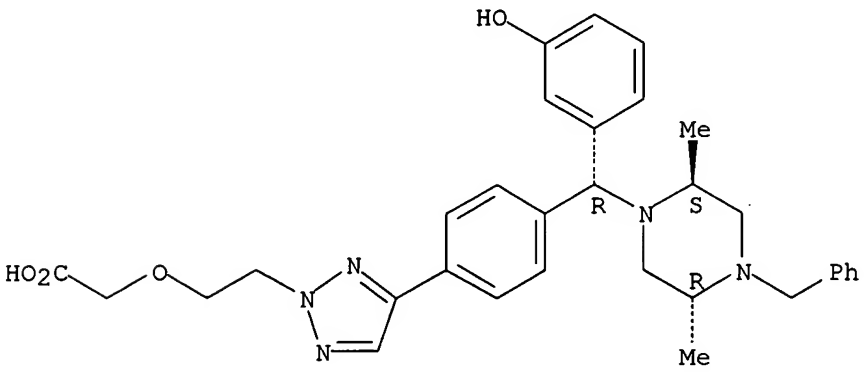
Absolute stereochemistry. Rotation (-).



RN 254113-46-7 USPATFULL

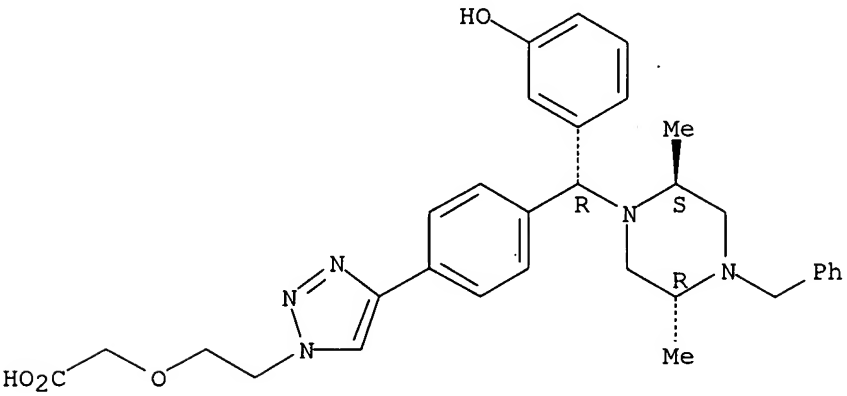
CN Acetic acid, [2-[4-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]-2H-1,2,3-triazol-2-yl]ethoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



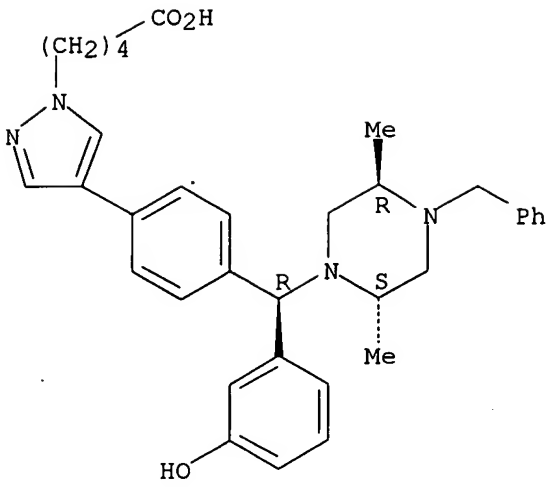
RN 254113-47-8 USPATFULL
CN Acetic acid, [2-[4-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]-1H-1,2,3-triazol-1-yl]ethoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



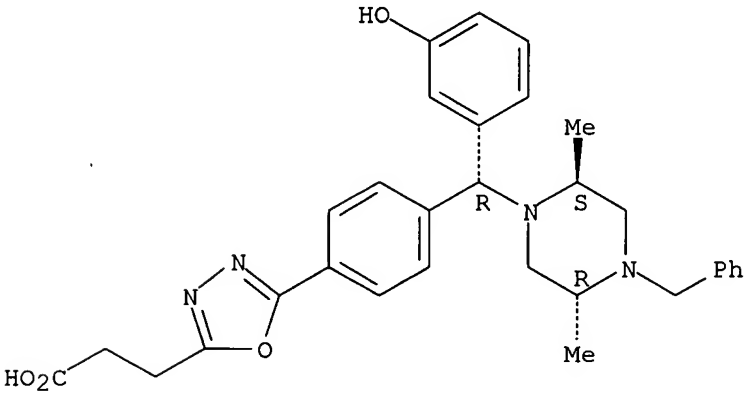
RN 254113-78-5 USPATFULL
CN 1H-Pyrazole-1-pentanoic acid, 4-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



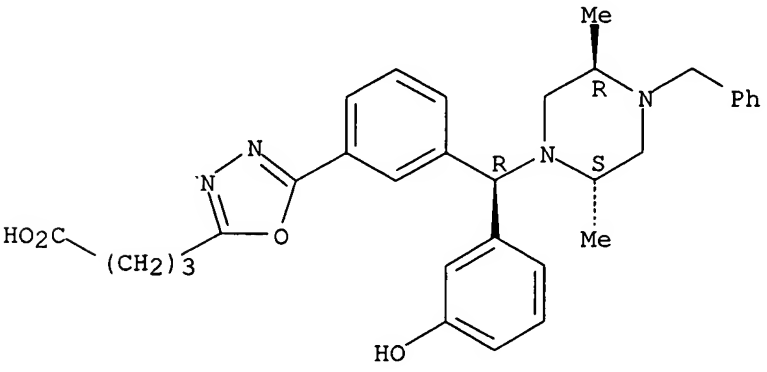
RN 254113-81-0 USPATFULL
CN 1,3,4-Oxadiazole-2-propanoic acid, 5-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



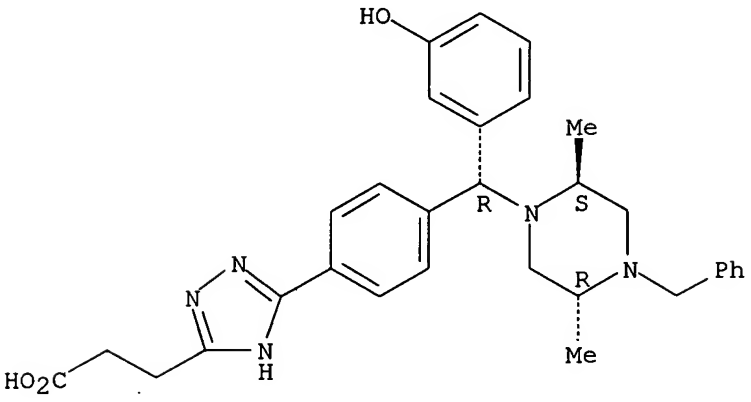
RN 254113-83-2 USPATFULL
CN 1,3,4-Oxadiazole-2-butanoic acid, 5-[3-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



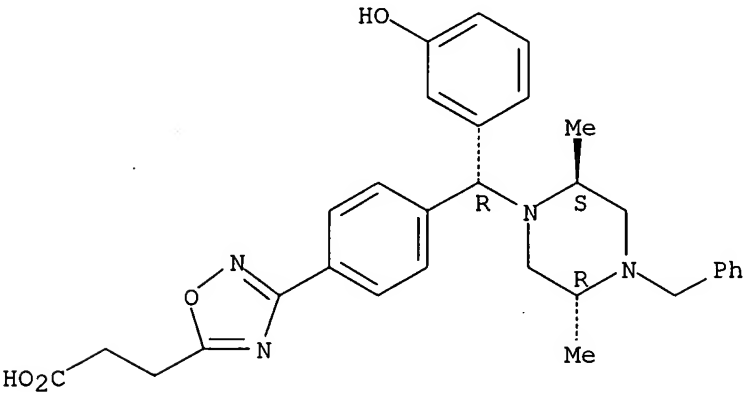
RN 254113-84-3 USPATFULL
CN 1H-1,2,4-Triazole-3-propanoic acid, 5-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



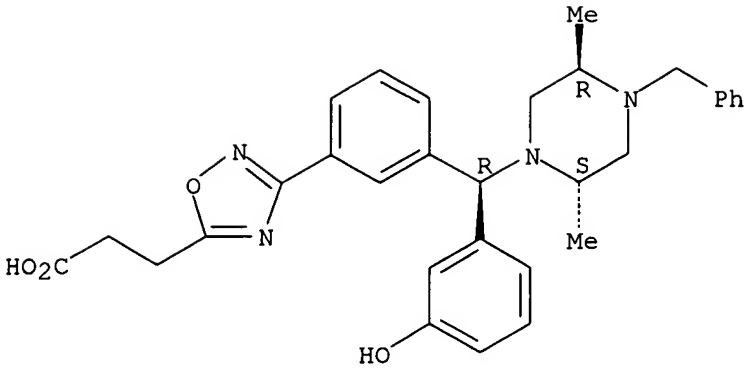
RN 254113-90-1 USPATFULL
CN 1,2,4-Oxadiazole-5-propanoic acid, 3-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



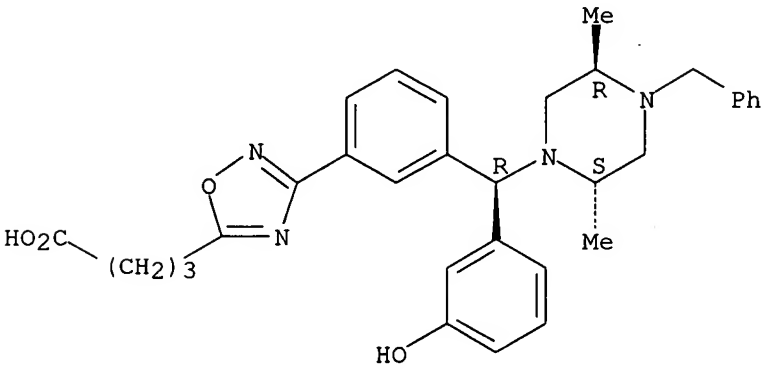
RN 254113-96-7 USPATFULL
CN 1,2,4-Oxadiazole-5-propanoic acid, 3-[3-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



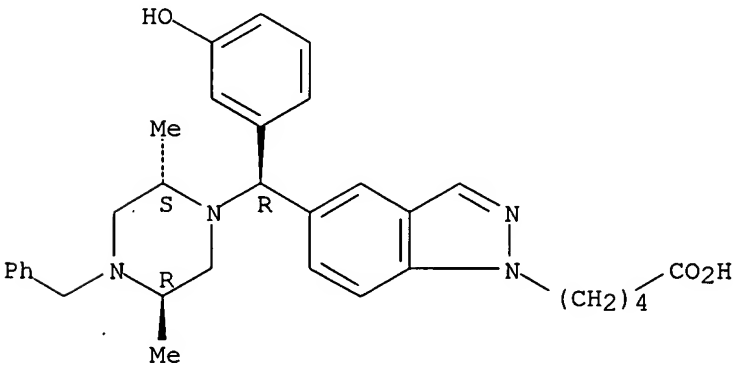
RN 254113-98-9 USPATFULL
CN 1,2,4-Oxadiazole-5-butanoic acid, 3-[3-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



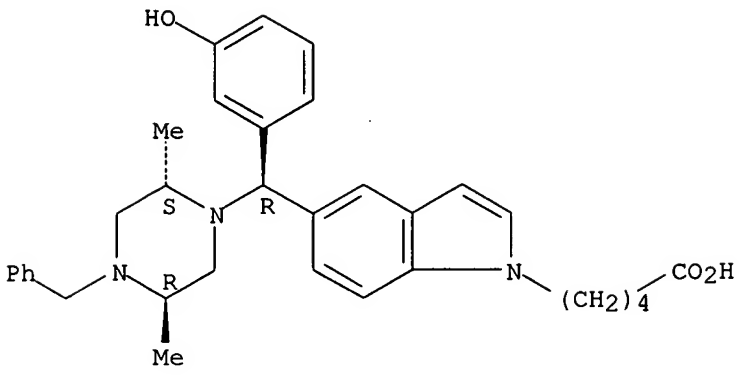
RN 254114-02-8 USPATFULL
CN 1H-Indazole-1-pentanoic acid, 5-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



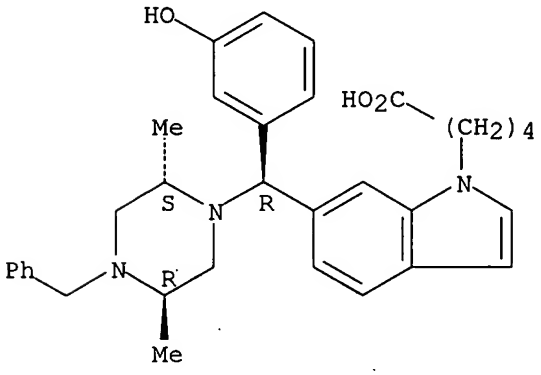
RN 254114-05-1 USPATFULL
CN 1H-Indole-1-pentanoic acid, 5-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



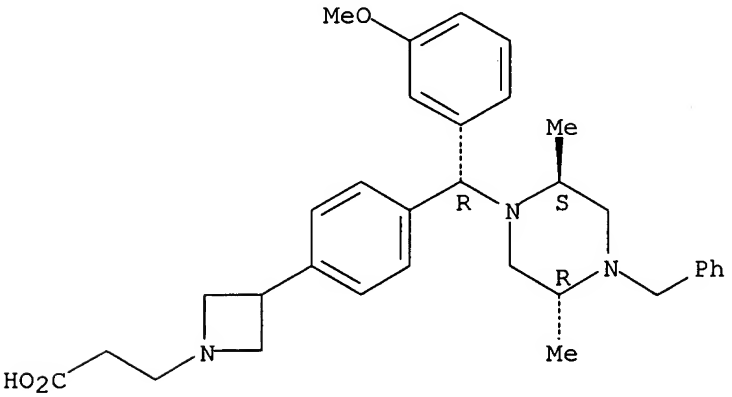
RN 254114-11-9 USPATFULL
CN 1H-Indole-1-pentanoic acid, 6-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 254114-19-7 USPATFULL
CN 1-Azetidinepropanoic acid, 3-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-methoxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

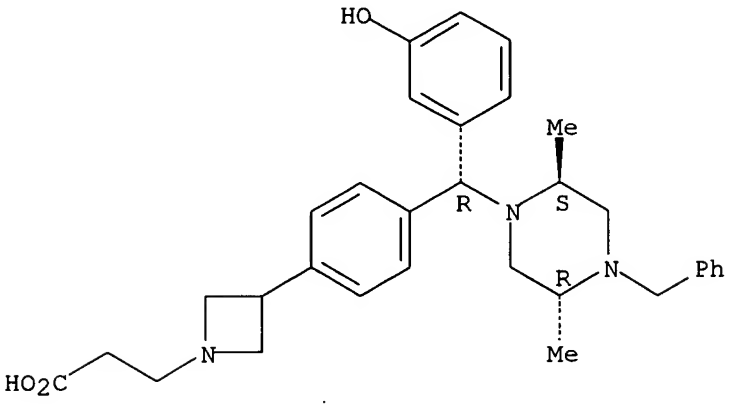
Absolute stereochemistry.



RN 254114-20-0 USPATFULL
CN 1-Azetidinepropanoic acid, 3-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-

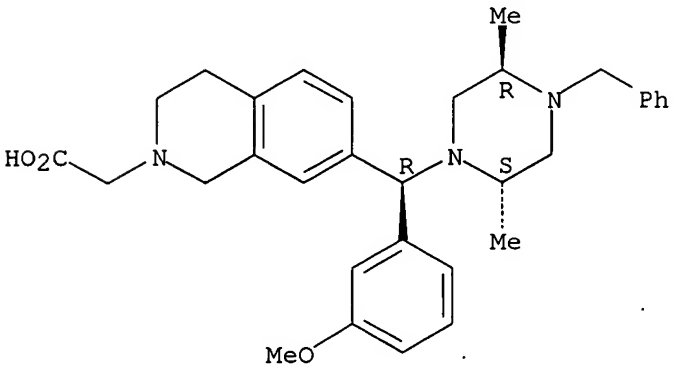
(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 254114-22-2 USPATFULL
CN 2(1H)-Isoquinolineacetic acid, 7-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-methoxyphenyl)methyl]-3,4-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 6 OF 16 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:483367 CAPLUS
DOCUMENT NUMBER: 121:83367
TITLE: Analgesic diarylmethylpiperazines and piperidines
INVENTOR(S): Chang, Kwen Jen; Boswell, Grady Evan; Bubacz, Dulce Garrido; Collins, Mark Allan; Davis, Ann Otstot; Mcnutt, Robert Walton
PATENT ASSIGNEE(S): Wellcome Foundation Ltd., UK
SOURCE: PCT Int. Appl., 214 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 7
PATENT INFORMATION:

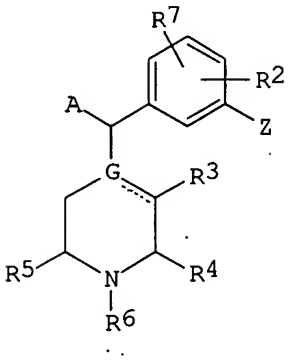
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9315062	A1	19930805	WO 1993-GB216	19930202
W: AT, AU, BR, CA, CH, DE, ES, HU, JP, KP, LU, NL, NO, PL, RO, RU,				

SE, UA, US
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG

AU 9334573	A1	19930901	AU 1993-34573		19930202
AU 675928	B2	19970227			
ZA 9300717	A	19940802	ZA 1993-717		19930202
JP 07503247	T2	19950406	JP 1993-513072		19930202
JP 3109832	B2	20001120			
EP 649414	A1	19950426	EP 1993-914513		19930202
EP 649414	B1	20030416			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE					
IL 104582	A1	19981030	IL 1993-104582		19930202
AT 237597	E	20030515	AT 1993-914513		19930202
PT 649414	T	20030930	PT 1993-914513		19930202
ES 2197152	T3	20040101	ES 1993-914513		19930202
US 5658908	A	19970819	US 1994-284445		19940803
US 5854249	A	19981229	US 1997-864667		19970528
US 2002052007	A1	20020502	US 2001-957903		20010921
US 2005255151	A1	20051117	US 2005-184762		20050719
PRIORITY APPLN. INFO.:			GB 1992-2238	A	19920203
			WO 1993-GB216	A	19930202
			US 1994-284445	A3	19940803
			US 1996-658726	A2	19960605
			US 1997-887312	A3	19970703
			US 1999-352308	A2	19990712
			US 2001-974004	A3	20011009

OTHER SOURCE(S): MARPAT 121:83367

GI

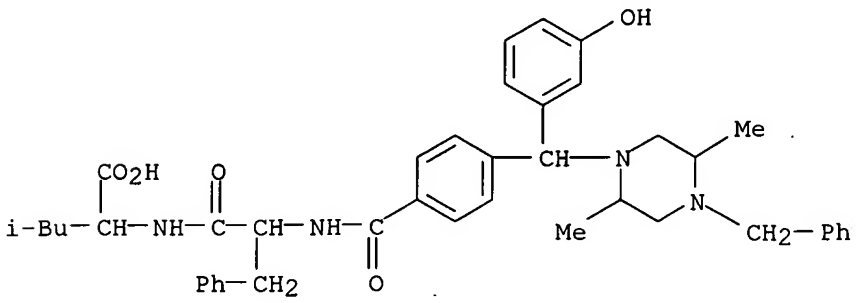


I

AB The title compds. [I; A = 5- or 6-membered carbocyclic or heterocyclic aromatic ring; G = C, N; R2 = H, halogen, C1-4 alkyl; R3-R5 = H, Me (so long as the total number of M e groups is not greater than 2); R6 = H, C1-6 alkyl, C3-6 cycloalkyl, aralkyl, etc.; R7 = H, F; Z = HO, esters, hydroxymethyl, NH2, carboximides, sulfonimides; R1 = R2 = R7 = F only when Z = OH and G = C when R6 ≠ aralkyl], useful as mu and/or delta receptor opioid compds. for mediating analgesia, are prepared and I-containing formulations presented. Thus, (±)-4-[(α-R)-α-[(2S,5R)]-4-allyl-2,5-dimethyl-1-piperazinyl-3-hydroxybenzyl]-N,N-diethylbenzamide, prepared from 3-bromophenol in a multi-step reaction, demonstrated 50% inhibitory concentration against rat brain delta receptors at 1.8 nM and 50% Mu receptor inhibitory concentration of 15 nM.

IT 155806-55-6P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and analgesic activity of)

RN 155806-55-6 CAPLUS
CN L-Leucine, N-[N-[4-[[2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]benzoyl]-L-phenylalanyl]-, [2R-[1(R*),2α,5β]]- (9CI) (CA INDEX NAME)



L5 ANSWER 7 OF 16 USPATFULL on STN
ACCESSION NUMBER: 2003:265855 USPATFULL
TITLE: Method of treating sexual dysfunctions with delta opioid receptor agonist compounds
INVENTOR(S): Chang, Kwen-Jen, Chapel Hill, NC, UNITED STATES
King, Klim, Chapel Hill, NC, UNITED STATES
Biciunas, Kestutis P., Durham, NC, UNITED STATES
McNutt, Robert W., JR., Durham, NC, UNITED STATES
Pendergast, William, Durham, NC, UNITED STATES
Jan, Shyi-Tai, Cary, NC, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003186872	A1	20031002
APPLICATION INFO.:	US 2003-335764	A1	20030102 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-345216P	20020102 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: INTELLECTUAL PROPERTY / TECHNOLOGY LAW, PO BOX 14329, RESEARCH TRIANGLE PARK, NC, 27709
NUMBER OF CLAIMS: 63
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Page(s)
LINE COUNT: 4363
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods for treatment of sexual dysfunctions by administering to a subject a pharmaceutical composition comprising a delta opioid receptor agonist in an amount effective to delay the onset of ejaculation in the subject during sexual stimulation.

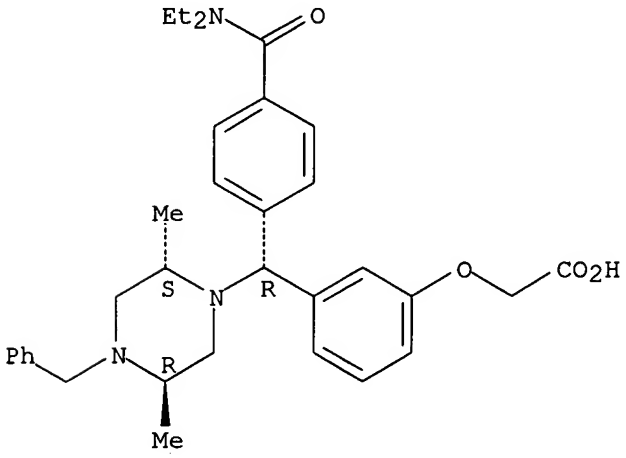
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT 561068-36-8P, 3-[(αR)-α-((2S,5R)-4-Benzyl-2,5-dimethyl-1-piperazinyl)-4-(diethylaminocarbonyl)benzyl]phenoxyacetic acid 561068-37-9P, 3-[(αR)-4-(Diethylaminocarbonyl)-α-[(2S,5R)-2,5-dimethyl-4-(4-fluorobenzyl)-1-piperazinyl]benzyl]phenoxyacetic acid 561068-66-4P, [3-[[(2R,5S)-4-[(R)-(3-Diethylcarbamoylphenyl)(3-hydroxyphenyl)methyl]-2,5-dimethylpiperazin-1-yl]methyl]phenoxy]acetic acid 561068-68-6P, [3-[[(2R,5S)-4-[(R)-(3-Diethylcarbamoylphenyl)(3-methoxyphenyl)methyl]-2,5-dimethylpiperazin-1-yl]methyl]phenoxy]acetic acid 561068-76-6P, [3-[(R)-(3-Diethylcarbamoylphenyl)[(2S,5R)-4-(3-

hydroxybenzyl)-2,5-dimethylpiperazin-1-yl]methyl]phenoxy]acetic acid 561068-77-7P, [3-[(R)-(3-Diethylcarbamoylphenyl)[(2S,5R)-4-(3-methoxybenzyl)-2,5-dimethylpiperazin-1-yl]methyl]phenoxy]acetic acid 561068-78-8P, [3-[[(2R,5S)-4-[(R)-[3-(Carboxymethoxy)phenyl](3-diethylcarbamoylphenyl)methyl]-2,5-dimethylpiperazin-1-yl]methyl]phenoxy]acetic acid
(drug candidate; preparation of novel piperazinylbenzyl derivs. and method of treating premature ejaculation with these and known delta opioid receptor agonists)

RN 561068-36-8 USPATFULL

CN Acetic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl]methyl]phenoxy]- (9CI) (CA INDEX NAME)

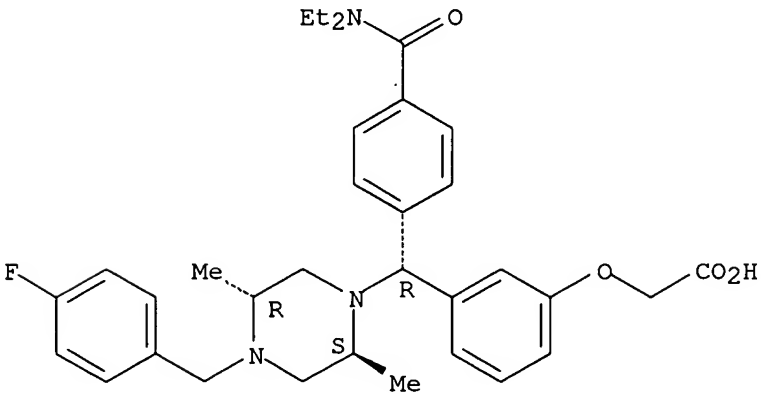
Absolute stereochemistry.



RN 561068-37-9 USPATFULL

CN Acetic acid, [3-[(R)-[4-[(diethylamino)carbonyl]phenyl][(2S,5R)-4-[(4-fluorophenyl)methyl]-2,5-dimethyl-1-piperazinyl]methyl]phenoxy]- (9CI) (CA INDEX NAME)

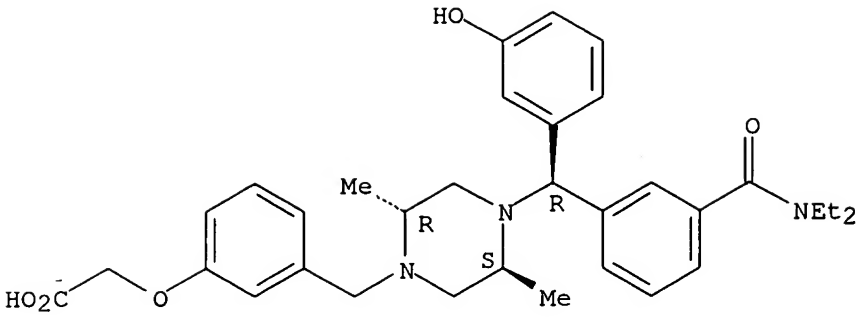
Absolute stereochemistry.



RN 561068-66-4 USPATFULL

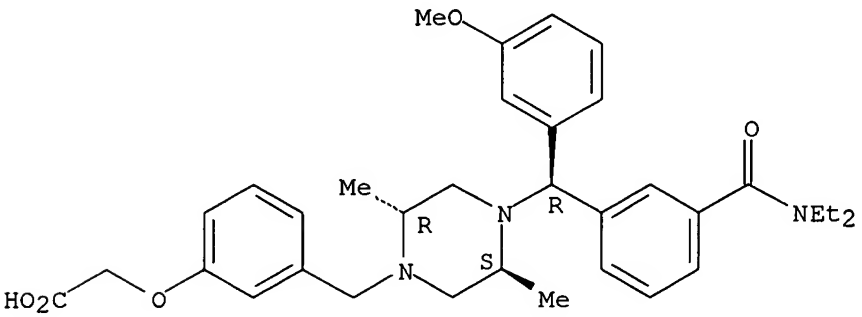
CN Acetic acid, [3-[[(2R,5S)-4-[(R)-[3-[(diethylamino)carbonyl]phenyl](3-hydroxyphenyl)methyl]-2,5-dimethyl-1-piperazinyl]methyl]phenoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



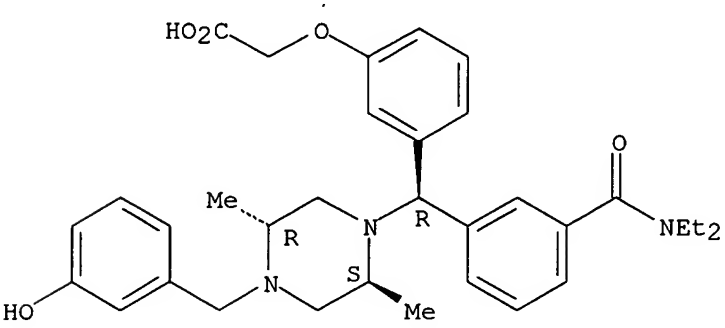
RN 561068-68-6 USPATFULL
CN Acetic acid, [3-[[(2R,5S)-4-[(R)-[3-[(diethylamino)carbonyl]phenyl](3-methoxyphenyl)methyl]-2,5-dimethyl-1-piperazinyl]methyl]phenoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



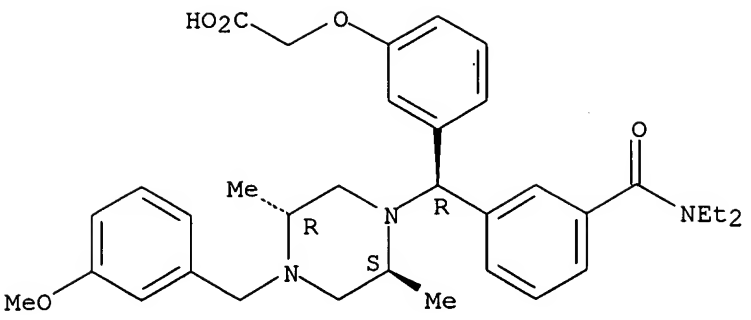
RN 561068-76-6 USPATFULL
CN Acetic acid, [3-[(R)-[3-[(diethylamino)carbonyl]phenyl][(2S,5R)-4-[(3-hydroxyphenyl)methyl]-2,5-dimethyl-1-piperazinyl]methyl]phenoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



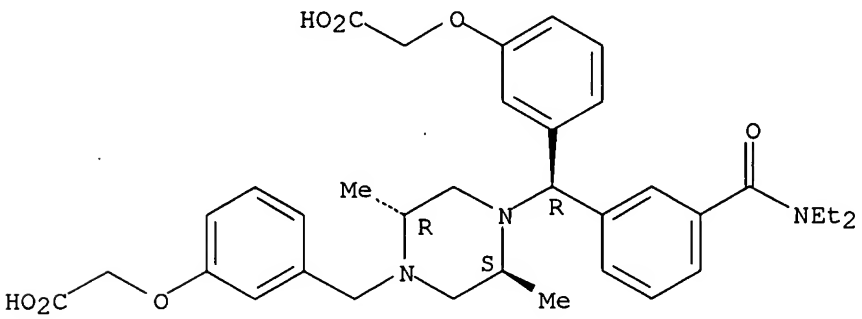
RN 561068-77-7 USPATFULL
CN Acetic acid, [3-[(R)-[3-[(diethylamino)carbonyl]phenyl][(2S,5R)-4-[(3-methoxyphenyl)methyl]-2,5-dimethyl-1-piperazinyl]methyl]phenoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 561068-78-8 USPATFULL
CN Acetic acid, [3-[[(2R,5S)-4-[(R)-[3-(carboxymethoxy)phenyl][3-[(diethylamino)carbonyl]phenyl]methyl]-2,5-dimethyl-1-piperazinyl]methyl]phenoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 8 OF 16 USPATFULL on STN

ACCESSION NUMBER:	2003:33481 USPATFULL
TITLE:	Anti-inflammatory piperazinyl-benzyl-tetrazole derivatives and intermediates thereof
INVENTOR(S):	Maw, Graham N., Sandwich, UNITED KINGDOM
PATENT ASSIGNEE(S):	Pfizer Inc, New York, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6514975	B1	20030204	
	WO 9852929		19981126	
APPLICATION INFO.:	US 1999-367322		19990811	(9)
	WO 1998-EP2277		19980417	

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1997-9972	19970519

DOCUMENT TYPE:	Utility
FILE SEGMENT:	GRANTED
PRIMARY EXAMINER:	Bernhardt, Emily
LEGAL REPRESENTATIVE:	Richardson, Peter C., Benson, Gregg C., Ronau, Robert T.
NUMBER OF CLAIMS:	17
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	0 Drawing Figure(s); 0 Drawing Page(s)
LINE COUNT:	3112

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to tetrazoles and their pharmaceutically

acceptable salts which are selective agonists for the delta opioid receptor, particularly useful in the treatment of inflammatory diseases such as arthritis, psoriasis, asthma, inflammatory bowel disease, disorders or respiratory function, gastrointestinal disorders such as functional bowel disease and functional GI disorders, of formula (I) ##STR1##

wherein R.sup.1 is H, C.sub.2-C.sub.6 alkanoyl, C.sub.1-C.sub.6 alkyl, C.sub.2-C.sub.6 alkenyl, C.sub.2-C.sub.6 alkynyl, (C.sub.3-C.sub.7 cycloalkyl)-(C.sub.1-C.sub.4 alkyl), (C.sub.1-C.sub.4 alkoxy)-(C.sub.1-C.sub.4 alkyl), carboxy-(C.sub.1-C.sub.4 alkyl), aryl-(C.sub.1-C.sub.4 alkyl) or heteroaryl-(C.sub.1-C.sub.4 alkyl); R.sup.2 and R.sup.3 are each independently H or C.sub.1-C.sub.4 alkyl; R.sub.4 is selected from (i) H, (ii) a group of the formula R.sup.6--(CH.sub.2).sub.m--Z--(CH.sub.2).sub.n--, where m is 0, 1, 2 or 3, n is 1, 2 or 3, Z is a direct link or O, and R.sup.6 is --CO.sub.2H or --CO.sub.2(C.sub.1-C.sub.4 alkyl), and (iii) a group of formula (a) ##STR2##

where R.sup.7 is H or C.sub.1-C.sub.4 alkyl; and R.sup.5 is hydroxy, C.sub.1-C.sub.4 alkoxy or --NHSO.sub.2(C.sub.1-C.sub.4 alkyl); with the proviso that when Z is O, m is 1, 2 or 3 and n is 2 or 3.

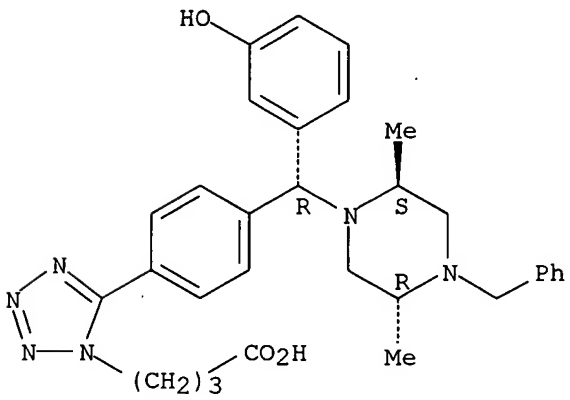
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 216531-27-0P 216531-28-1P 216531-29-2P
216531-30-5P 216531-31-6P 216531-32-7P
(preparation of piperazinylbenzyltetrazoles as selective agonists for the delta opioid receptor)

RN 216531-27-0 USPATFULL

CN 1H-Tetrazole-1-butanoic acid, 5-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

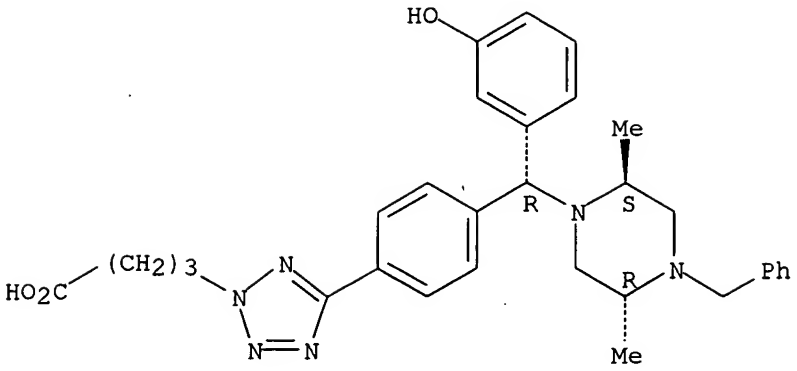
Absolute stereochemistry. Rotation (-).



RN 216531-28-1 USPATFULL

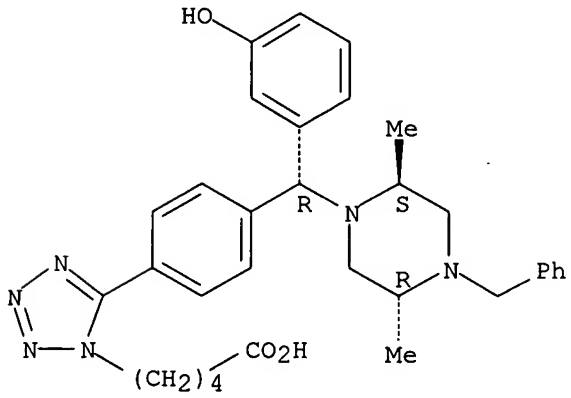
CN 2H-Tetrazole-2-butanoic acid, 5-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



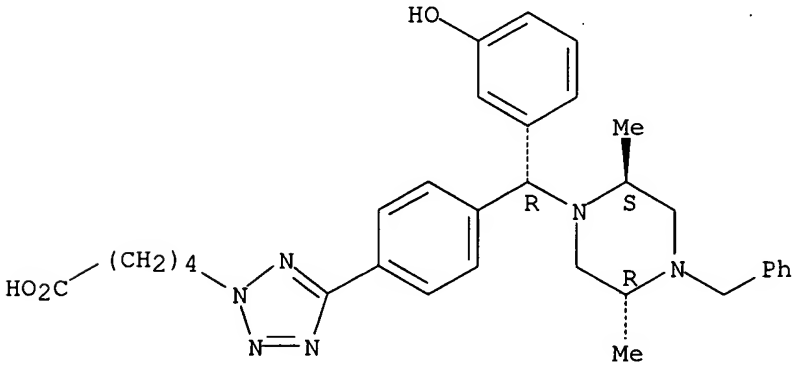
RN 216531-29-2 USPATFULL
CN 1H-Tetrazole-1-pentanoic acid, 5-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 216531-30-5 USPATFULL
CN 2H-Tetrazole-2-pentanoic acid, 5-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

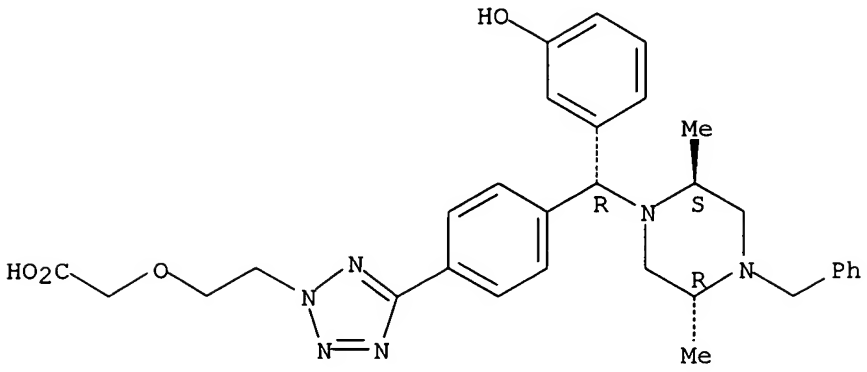
Absolute stereochemistry. Rotation (-).



RN 216531-31-6 USPATFULL
CN Acetic acid, [2-[5-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]-2H-tetrazol-2-yl]ethoxy]-

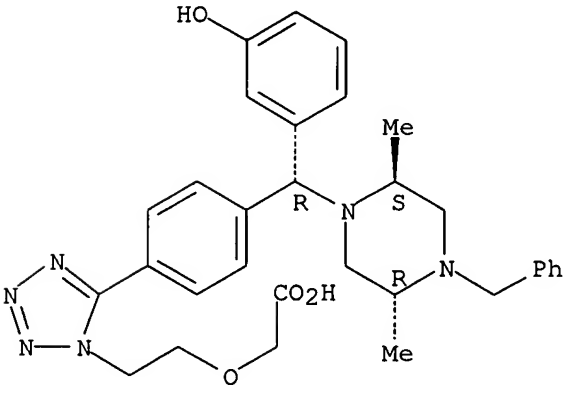
(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 216531-32-7 USPATFULL
CN Acetic acid, [2-[5-[4-[(R)-[(2S,5R)-2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]phenyl]-1H-tetrazol-1-yl]ethoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 9 OF 16 USPATFULL on STN

ACCESSION NUMBER:	2005:292605 USPATFULL
TITLE:	Compositions and methods for reducing respiratory depression and attendant side effects of mu opioid compounds
INVENTOR(S):	Chang, Kwen-Jen, Chapel Hill, NC, UNITED STATES McNutt, Robert W. JR., Durham, NC, UNITED STATES Pettit, Hugh O., Cary, NC, UNITED STATES Bishop, Michael J., Durham, NC, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005255151	A1	20051117
APPLICATION INFO.:	US 2005-184762	A1	20050719 (11)

RELATED APPLN. INFO.: Division of Ser. No. US 2001-974004, filed on 9 Oct 2001, GRANTED, Pat. No. US 6919350 Division of Ser. No. US 1999-352308, filed on 12 Jul 1999, GRANTED, Pat. No. US 6300332 Division of Ser. No. US 1997-887312, filed on 3 Jul 1997, GRANTED, Pat. No. US 5985880 Continuation-in-part of Ser. No. US 1996-658726, filed

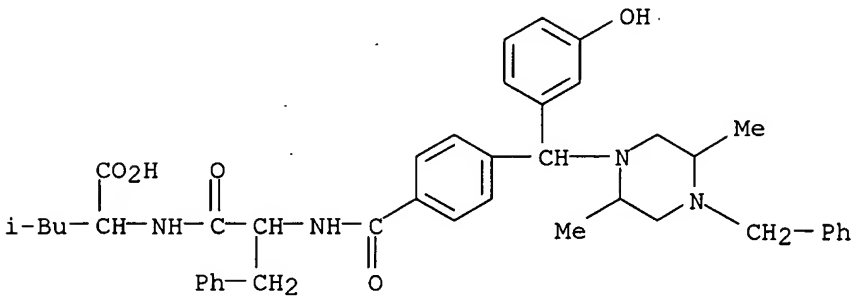
on 5 Jun 1996, GRANTED, Pat. No. US 5807858

	NUMBER	DATE
PRIORITY INFORMATION:	WO 1993-GB216	19930202
	GB 1992-2238	19920203

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: INTELLECTUAL PROPERTY / TECHNOLOGY LAW, PO BOX 14329, RESEARCH TRIANGLE PARK, NC, 27709, US
NUMBER OF CLAIMS: 3
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Page(s)
LINE COUNT: 2121
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of reducing, treating or preventing drug-mediated respiratory depression, muscle rigidity, or nausea/vomiting in an animal, incident to the administration to said animal of a mixed delta/mu opioid agonist or a respiratory depression-mediating drug, comprising administering to the animal receiving said drug an effective amount of a delta receptor agonist compound. Preferred examples of such delta receptor agonist compound include diarylmethyl piperazine compounds and diarylmethyl piperidine compounds, and pharmaceutical compositions thereof, having utility in medical therapy for reducing respiratory depression associated with certain analgesics, such as mu opiates.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT 155806-55-6P
(preparation and analgesic activity of)
RN 155806-55-6 USPATFULL
CN L-Leucine, N-[N-[4-[[2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]benzoyl]-L-phenylalanyl]-, [2R-[1(R*),2α,5β]]- (9CI) (CA INDEX NAME)



L5 ANSWER 10 OF 16 USPATFULL on STN
ACCESSION NUMBER: 2002:206661 USPATFULL
TITLE: Compositions and Methods for Reducing Respiratory Depression and Attendant SIde Effects of Mu Opioid Compounds
INVENTOR(S): Chang , Kwen-Jen , Mr., 104 Sierra Drive, Chapel Hill, NC, UNITED STATES 27514
McNutt , Robert W. , Jr. , Mr., 700 Morreene Road, APt. B-9, Durham, NC, UNITED STATES 27705
Pettit , Hugh O. , Mr., 106 Wyatts Pond Lane, Cary, NC, UNITED STATES 27513
Bishop , Michael J. , Mr., 235 Lochridge Drive, Durham, NC, UNITED STATES 27713
PATENT ASSIGNEE(S): Ardent Pharmaceuticals, Inc., RTP, 27709-2278, UNITED STATES, NC (U.S. individual)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002111359	A1	20020815
	US 6919350	B2	20050719
APPLICATION INFO.:	US 2001-974004	A1	20011009 (9)

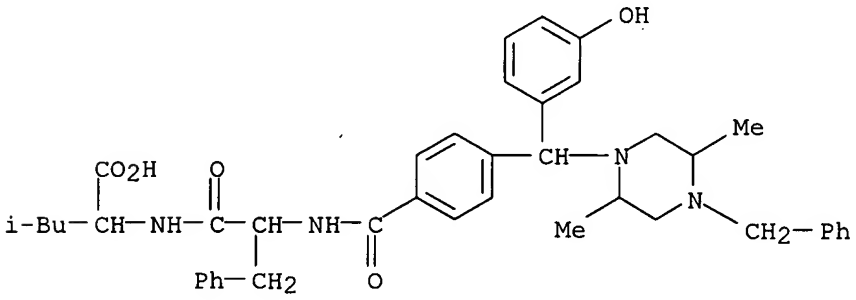
RELATED APPLN. INFO.: Division of Ser. No. US 1999-9352308, filed on 12 Jul 1999, GRANTED, Pat. No. US 6300332 Division of Ser. No. US 1997-8887312, filed on 3 Jul 1997, GRANTED, Pat. No. US 5985880 Continuation-in-part of Ser. No. US 1996-8658726, filed on 5 Jun 1996, GRANTED, Pat. No. US 5807858

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Steven J. Hultquist, Marianne Fuierer, 6320 Quadrangle, Suite 110, Chapel Hill, NC, 27517
NUMBER OF CLAIMS: 29
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Page(s)
LINE COUNT: 2405
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Abstract of Disclosure

A method of reducing, treating or preventing drug-mediated respiratory depression, muscle rigidity, or nausea/vomiting in an animal, incident to the administration to said animal of a mixed delta/mu opioid agonist or a respiratory depression-mediating drug, comprising administering to the animal receiving said drug an effective amount of a delta receptor agonist compound. Preferred examples of such delta receptor agonist compound include diarylmethyl piperazine compounds and diarylmethyl piperidine compounds, and pharmaceutical compositions thereof, having utility in medical therapy for reducing respiratory depression associated with certain analgesics, such as mu opiates.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT 155806-55-6P
(preparation and analgesic activity of)
RN 155806-55-6 USPATFULL
CN L-Leucine, N-[N-[4-[[2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]benzoyl]-L-phenylalanyl]-, [2R-[1(R*),2α,5β]]- (9CI) (CA INDEX NAME)



L5 ANSWER 11 OF 16 USPATFULL on STN
ACCESSION NUMBER: 2001:173586 USPATFULL
TITLE: Methods for reducing respiratory depression and attendant side effects of mu opioid compounds
INVENTOR(S): Chang, Kwen-Jen, Chapel Hill, NC, United States
McNutt, Jr., Robert W., Durham, NC, United States
Pettit, Hugh O., Cary, NC, United States

	Bishop, Michael J., Durham, NC, United States
PATENT ASSIGNEE(S):	Delta Pharmaceuticals, Inc., Durham, NC, United States (U.S. corporation)

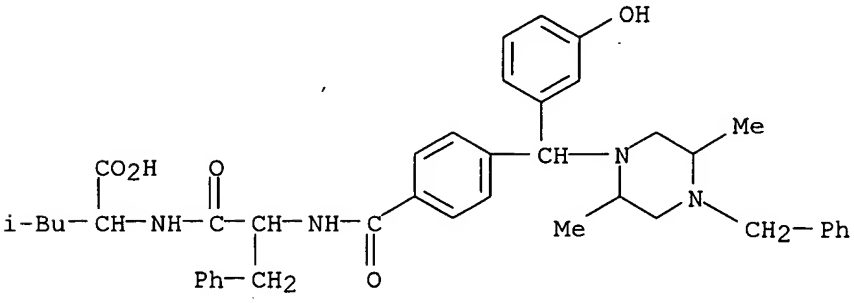
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6300332	B1	20011009
APPLICATION INFO.:	US 1999-352308		19990712 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1997-887312, filed on 3 Jul 1997, now patented, Pat. No. US 5985880, issued on 16 Nov 1999 Continuation-in-part of Ser. No. US 1996-658726, filed on 5 Jun 1996, now patented, Pat. No. US 5807858, issued on 15 Sep 1998

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Jarvis, William R. A.
LEGAL REPRESENTATIVE: Hultquist, Steven J.
NUMBER OF CLAIMS: 25
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)
LINE COUNT: 2505
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of reducing, treating or preventing drug-mediated respiratory depression, muscle rigidity, or nausea/vomiting in an animal, incident to the administration to said animal of a mixed delta/mu opioid agonist or a respiratory depression-mediating drug, comprising administering to the animal receiving said drug an effective amount of a delta receptor agonist compound.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT 155806-55-6P
(preparation and analgesic activity of)
RN 155806-55-6 USPATFULL
CN L-Leucine, N-[N-[4-[[2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]benzoyl]-L-phenylalanyl]-, [2R-[1(R*),2α,5β]]- (9CI) (CA INDEX NAME)



L5 ANSWER 12 OF 16 USPATFULL on STN

ACCESSION NUMBER:	1998:162513 USPATFULL
TITLE:	Opioid diarylmethylpiperazines and piperidines
INVENTOR(S):	Chang, Kwen-Jen, Chapel Hill, NC, United States Boswell, Grady Evan, Cary, NC, United States Bubacz, Dulce Garrido, Cary, NC, United States Collins, Mark Allan, Raleigh, NC, United States Davis, Ann Otstot, Raleigh, NC, United States McNutt, Jr., Robert Walton, Durham, NC, United States
PATENT ASSIGNEE(S):	Delta Pharmaceuticals, Inc., Chapel Hill, NC, United States (U.S. corporation)

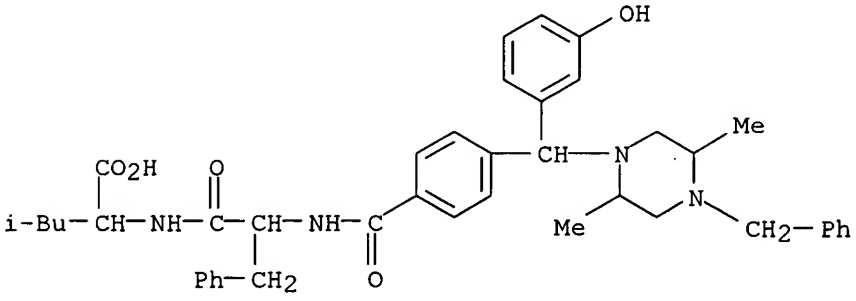
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5854249		19981229
APPLICATION INFO.:	US 1997-864667		19970528 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-284445, filed on 3 Aug 1994, now patented, Pat. No. US 5658908		

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1992-2238	19920203

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Shah, Mukund J.
ASSISTANT EXAMINER: Ngo, Tamthom T.
LEGAL REPRESENTATIVE: Hultquist, Steven J., Barrett, William A.
NUMBER OF CLAIMS: 22
EXEMPLARY CLAIM: 1
LINE COUNT: 5761
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method for the treatment or prophylaxis of one or more conditions or disorders selected from the group consisting of physiological pain, diarrhea, urinary incontinence, mental illness, drug and alcohol addiction/overdose, lung edema, depressioysema, apnea, cognitive disorders and gastrointestinal disorders, comprising administration to a subject in need of such treatment or prophylaxis, of a diarylmethylpiperazine or piperidine opioid compound.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT 155806-55-6P
(preparation and analgesic activity of)
RN 155806-55-6 USPATFULL
CN L-Leucine, N-[N-[4-[[2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]benzoyl]-L-phenylalanyl]-, [2R-[1(R*),2α,5β]]- (9CI) (CA INDEX NAME)



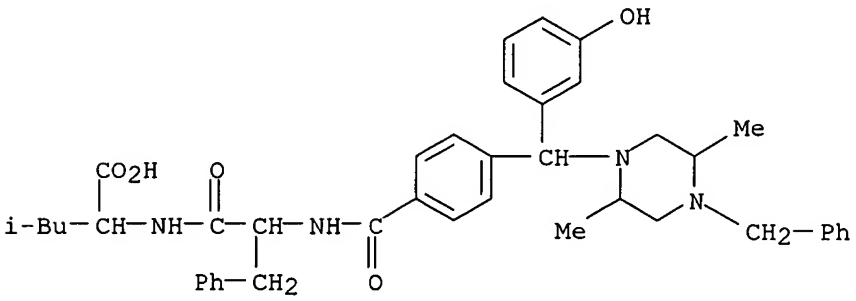
L5 ANSWER 13 OF 16 USPATFULL on STN
ACCESSION NUMBER: 1998:111938 USPATFULL
TITLE: Compositions and methods for reducing respiratory depression
INVENTOR(S): Chang, Kwen-Jen, Chapel Hill, NC, United States
McNutt, Jr., Robert W., Durham, NC, United States
Pettit, Hugh O., Cary, NC, United States
Bishop, Michael J., Durham, NC, United States
PATENT ASSIGNEE(S): Delta Pharmaceutical, Inc., Chapel Hill, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5807858		19980915

APPLICATION INFO.: US 1996-658726 19960605 (8)
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Rotman, Alan L.
ASSISTANT EXAMINER: Aulakm, Charanjit S.
LEGAL REPRESENTATIVE: Hultquist, Steven J., Barrett, William A.
NUMBER OF CLAIMS: 46
EXEMPLARY CLAIM: 1
LINE COUNT: 2203
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to, inter alia, methods and compositions for reducing, treating or preventing respiratory depression in an animal, using a compound of the formula: ##STR1## wherein: Ar, G, Z, R.sup.2, R.sup.3, R.sup.4, R.sup.5, R.sup.6 and R.sup.7 are as defined in specification,

or a pharmaceutically acceptable ester or salt thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT 155806-55-6P
(preparation and analgesic activity of)
RN 155806-55-6 USPATFULL
CN L-Leucine, N-[N-[4-[[2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]benzoyl]-L-phenylalanyl]-, [2R-[1(R*),2α,5β]]- (9CI) (CA INDEX NAME)



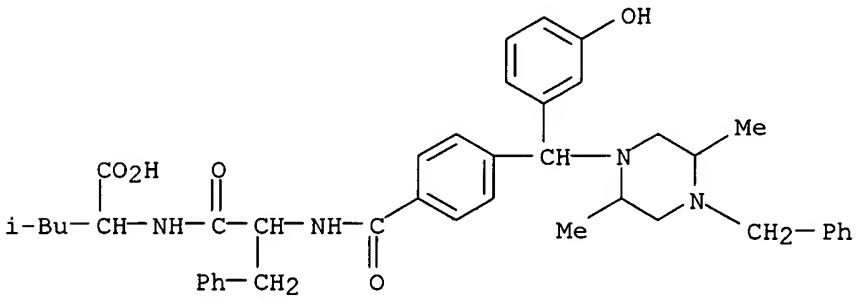
L5 ANSWER 14 OF 16 USPATFULL on STN
ACCESSION NUMBER: 97:73615 USPATFULL
TITLE: Opioid diarylmethylpiperazines and piperdines
INVENTOR(S): Chang, Kwen-Jen, Chapel Hill, NC, United States
Boswell, Grady Evan, Cary, NC, United States
Bubacz, Dulce Garrido, Cary, NC, United States
Collins, Mark Allan, Raleigh, NC, United States
Davis, Ann Otstot, Raleigh, NC, United States
McNutt, Jr., Robert Walton, Durham, NC, United States
PATENT ASSIGNEE(S): Delta Pharmaceuticals, Inc., Chapel Hill, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5658908		19970819	
	WO 9315062		19930805	
APPLICATION INFO.:	US 1994-284445		19940803	(8)
	WO 1993-GB216		19930202	
			19940803	PCT 371 date
			19940803	PCT 102(e) date

NUMBER	DATE

PRIORITY INFORMATION: GB 1992-2238 19920203
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Bernhardt, Emily
LEGAL REPRESENTATIVE: Hultquist, Steven J.
NUMBER OF CLAIMS: 26
EXEMPLARY CLAIM: 1,19,21,22
LINE COUNT: 5991
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Diarylmethylpiperazine compounds having utility as receptor-binding species, e.g., for mediating analgesia, and for combatting drug addiction, alcohol addiction, and drug overdose. The compounds may be administered orally, rectally, topically, nasally, ophthalmically, or parenterally (subcutaneously, intramuscularly, and intravenously), for veterinary and human use, and include delta receptor and mu receptor binding species.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT 155806-55-6P
(preparation and analgesic activity of)
RN 155806-55-6 USPATFULL
CN L-Leucine, N-[N-[4-[[2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]benzoyl]-L-phenylalanyl]-, [2R-[1(R*),2α,5β]]- (9CI) (CA INDEX NAME)



L5 ANSWER 15 OF 16 USPATFULL on STN
ACCESSION NUMBER: 96:104120 USPATFULL
TITLE: Opioid compounds and methods for making therefor
INVENTOR(S): Chang, Kwen-Jen, Chapel Hill, NC, United States
Bubacz, Dulce G., Cary, NC, United States
Davis, Ann O., Raleigh, NC, United States
McNutt, Jr., Robert W., Durham, NC, United States
Bishop, Michael J., Durham, NC, United States
PATENT ASSIGNEE(S): Delta Pharmaceuticals, Inc., Chapel Hill, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5574159		19961112
APPLICATION INFO.:	US 1995-430677		19950428 (8)

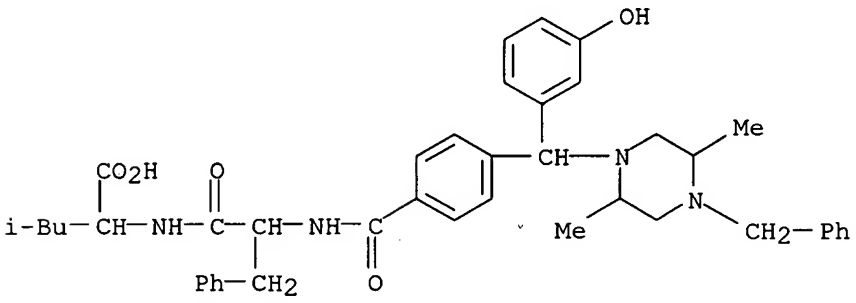
RELATED APPLN. INFO.: Division of Ser. No. US 1994-285313, filed on 3 Aug 1994 which is a continuation-in-part of Ser. No. US 1993-169879, filed on 17 Dec 1993, now abandoned which is a continuation-in-part of Ser. No. US 1993-98333, filed on 30 Jul 1993, now abandoned

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1992-2238	19920203

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Ford, John M.
ASSISTANT EXAMINER: Sripada, Pavanaram K.
LEGAL REPRESENTATIVE: Hultquist, Steven J.
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1
LINE COUNT: 3425
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Diarylmethyl piperazine compounds having utility as exogenous receptor combinant species for binding with receptors such as delta, mu, sigma, and/or kappa receptors are disclosed. Compounds of the invention may be employed as conjugates in agonist/antagonist pairs for transductional monitoring and assays of neurotransmitter function, and also variously exhibit therapeutic utility, including mediating analgesia, and possessing utility for the treatment of diarrhea, urinary incontinence, mental illness, drug and alcohol addiction/overdose, lung edema, depression, asthma, emphysema, cough, and apnea, respiratory depression, cognitive disorders, emesis and gastrointestinal disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT 155806-55-6P
(preparation and analgesic activity of)
RN 155806-55-6 USPATFULL
CN L-Leucine, N-[N-[4-[[2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]benzoyl]-L-phenylalanyl]-, [2R-[1(R*),2α,5β]]- (9CI) (CA INDEX NAME)



L5 ANSWER 16 OF 16 USPATFULL on STN
ACCESSION NUMBER: 96:80271 USPATFULL
TITLE: Opioid compounds and methods for using same
INVENTOR(S): Chang, Kwen-Jen, Chapell Hill, NC, United States
Bubacz, Dulce G., Cary, NC, United States
Davis, Ann O., Raleigh, NC, United States
McNutt, Jr., Robert W., Durham, NC, United States
Bishop, Michael J., Durham, NC, United States
PATENT ASSIGNEE(S): Delta Pharmaceuticals, Inc., Chapel Hill, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5552404		19960903
APPLICATION INFO.:	US 1995-431377		19950428 (8)

RELATED APPLN. INFO.: Division of Ser. No. US 1994-285313, filed on 3 Aug 1994 which is a continuation-in-part of Ser. No. US 1993-169879, filed on 17 Dec 1993, now abandoned which is a continuation-in-part of Ser. No. US 1993-98333, filed on 30 Jul 1993, now abandoned
DOCUMENT TYPE: Utility

FILE SEGMENT: Granted
PRIMARY EXAMINER: Cintins, Marianne M.
ASSISTANT EXAMINER: MacMillan, Keith
LEGAL REPRESENTATIVE: Hultquist, Steven J.
NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1
LINE COUNT: 3527
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Diarylmethyl piperazine compounds having utility as exogenous receptor combinant species for binding with receptors such as delta, mu, sigma, and/or kappa receptors are disclosed. Compounds of the invention may be employed as conjugates in agonist/antagonist pairs for transductional monitoring and assays of neurotransmitter function, and also variously exhibit therapeutic utility, including mediating analgesia, and possessing utility for the treatment of diarrhea, urinary incontinence, mental illness, drug and alcohol addiction/overdose, lung edema, depression, asthma, emphysema, cough, and apnea, respiratory depression, cognitive disorders, emesis and gastrointestinal disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT 155806-55-6P
(preparation and analgesic activity of)
RN 155806-55-6 USPATFULL
CN L-Leucine, N-[N-[4-[[2,5-dimethyl-4-(phenylmethyl)-1-piperazinyl](3-hydroxyphenyl)methyl]benzoyl]-L-phenylalanyl]-, [2R-[1(R*),2α,5β]]- (9CI) (CA INDEX NAME)